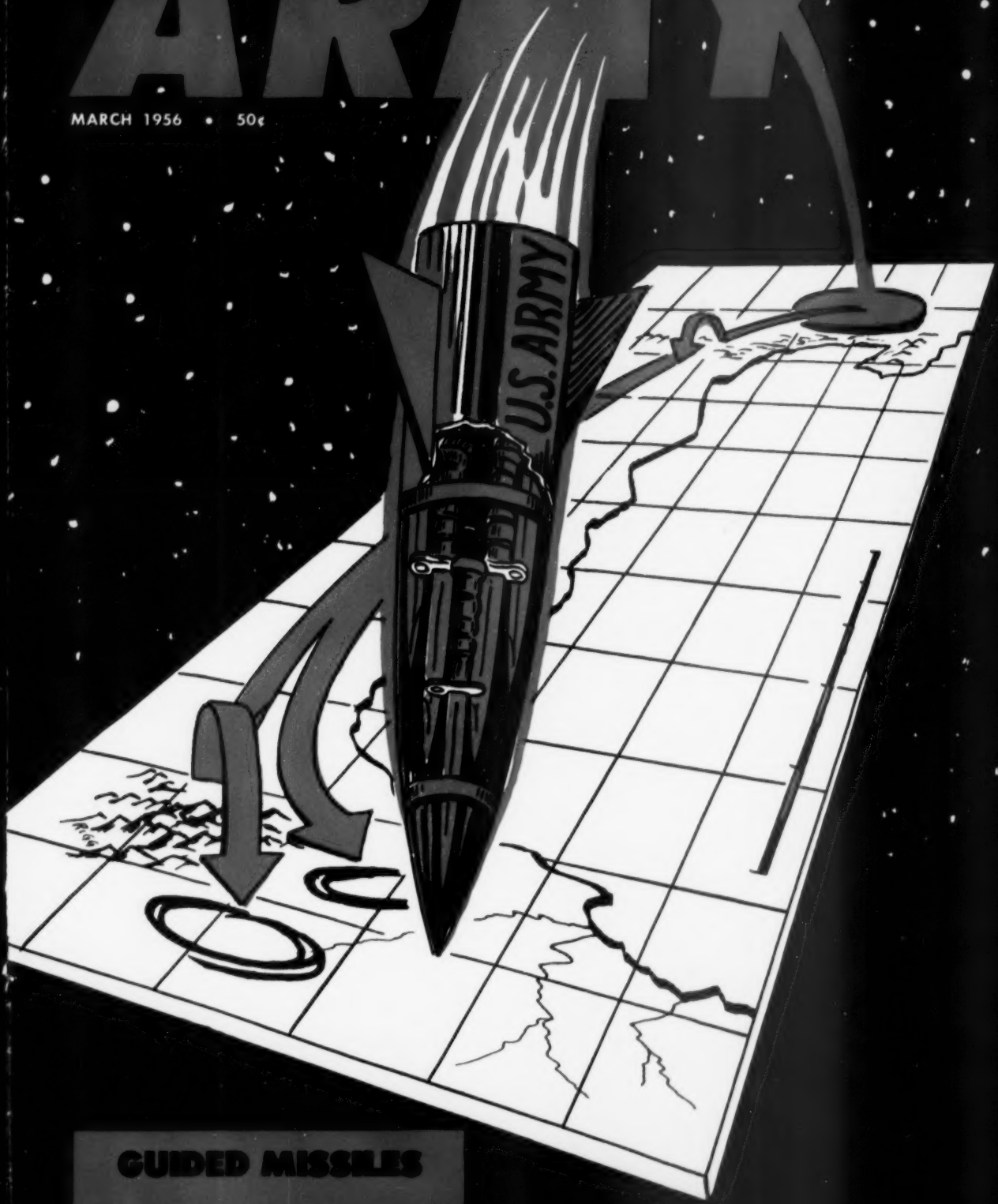


# ARMY

MARCH 1956 • 50¢



**GUIDED MISSILES**

*The Army's Long Thrust*

**IT'S A LONG WAY DOWN**

**The sheer face of this peak in the  
Colorado Rockies is successfully  
challenged by two soldier-climbers**



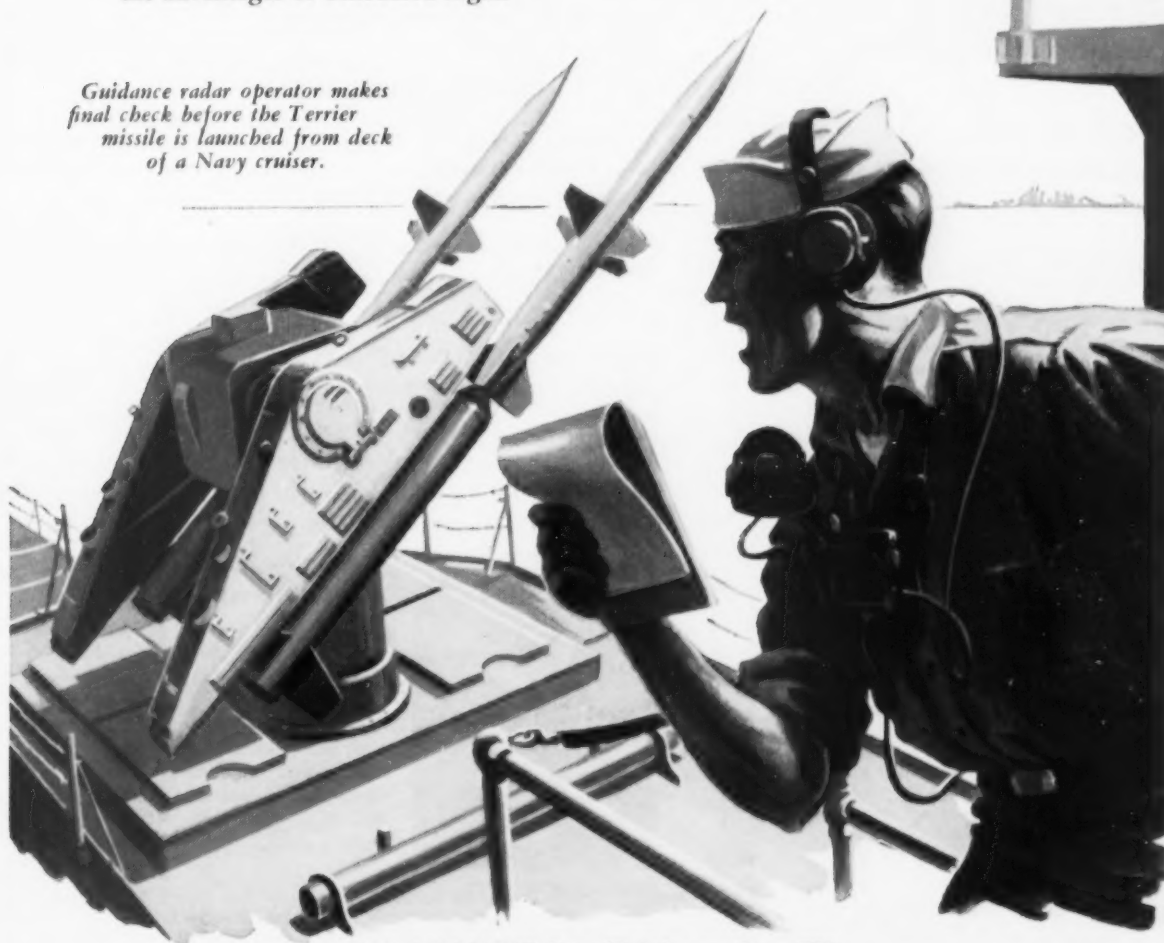
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ARMY is a professional military magazine devoted to the dissemination of information and ideas relating to the military art and science representing the interests of the entire Army. ARMY strives to—

Advance man's knowledge of warfare in the fields of strategy, tactics, logistics, operations, administration, weapons and weapons systems.

Advance man's knowledge and understanding of the soldier as an individual, as a member of a trained unit, and as a member of the whole Army; emphasizing leadership, esprit, loyalty, and a high sense of duty.

Disseminate knowledge of military history, especially articles that have application to current problems or foster tradition and create esprit.

Explain the important and vital role of the United States Army in the Nation's defense and show that the Army is alert to the challenges of new weapons, machines, and methods.

Advance the status of the soldier's profession.

(Adapted by the Executive Council of the Association of the U. S. Army, 21 June 1954)

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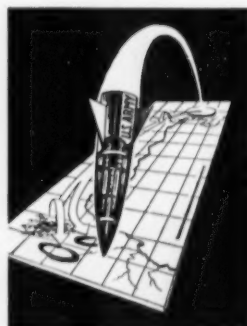
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## The Month's Cover

Guided missiles will give artillerymen an extension of range and a flexibility in choice of target far beyond anything dreamed of in the past. In his cover design Lt. Col. Robert B. Rigg suggests that the guided missile will be to the artilleryman what the long thrust is to the skilled bayoneteer—the power stroke that kills.

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## THE MONTH'S MAIL

### Dress the Part

• When I received the December issue I was struck again by the amount of readable material you put into the magazine.

You deserve an accolade for the Cerebration on saluting. It's about time that the blame for our lack of military courtesy is laid at the proper door. After being an enlisted man and a junior officer in troop units, I have arrived at the same conclusion as Major Murray. How can the man in the ranks emulate superiors who openly flout courtesy? This not only applies to saluting, but to general military appearance.

It has gotten to the point where, to find a sharp officer, you must get down to a crack unit. We do have a great number of officers who seem to feel that they have just a job in our Army. I know of one field officer who habitually wears his sleeves rolled up. The excuse is that "he's just a doctor; so what?"

Usually a unit has all kinds of posters around its area, "Be Neat," "Be Sharp," and so on. This is all fine, but no one seems to tell the officer those admonitions are also addressed at him. We take it for granted that he should have pride and carry himself accordingly. But all in all, this is not true. Some of our officers don't dress up to military standards. Many have ill fitting or old uniforms, and never consult a tailor.

Every unit could devote an officers' call to this subject. If that fails, commanders should discipline the negligent ones. MPs will nail an enlisted man for making a sloppy appearance. Let's begin nailing some of our brother officers who do the same thing.

LT. DAVIS STEVENSON

USA Mission  
Asuncion, Paraguay

### Saddle Sores = Mental Mobility

• Major Cushman's Cerebration ("Mobility is Men") in the December issue is an example of the technique of citing only those facts which tend to support a premise. He cites "these exponents of mobile warfare: Jackson, Sheridan and Rommel," and goes on to point out by implication that none of the three belonged to anything resembling a "mobile arm."

The Major overlooked some excellent additional examples in "proof" of his con-

tention: Grant (Infantry), Sherman (Artillery) or even Napoleon (Artillery). It would be difficult to find more perfect examples of mobile warfare than the Vicksburg campaign, the March to the Sea, or the evolutions culminating in the Battle of Ulm. Apparently it was convenient to overlook such exponents of mobile warfare as Jeb Stuart, or George S. Patton. After all, they were cavalymen.

In assembling his "proof by example," Major Cushman overlooked something which all of the persons mentioned had in common: they were horsemen, not by profession but by avocation. They were accustomed to the increased stature and extended horizons of the mounted man.

From the beginning of civilization the mounted man has enjoyed a physical and psychological advantage over the pedestrian. Certainly no one would quarrel with Major Cushman's statement that mental mobility is not the special preserve of the man who rides. Nevertheless, the strong chain of coincidence would seem to substantiate the premise that the mounted man tends to acquire or develop the attributes currently associated with mental mobility. To translate mental mobility into tactical or strategical mobility, one must have the physical means for doing it. And unless one is accustomed to using those means, he will not be mentally conditioned to take advantage of them when and if they do become available.

Traditionally the foot soldier has looked up to the mounted man. Veneration of the "knight" has not always been untinted with envy.

To paraphrase Major Cushman, mobility belongs to those who have the means of achieving it, will use it, and are skilled in exercising those means. You can't get much of that any more.

CAPT. MARION D. JOYCE

17 Estes Drive  
Columbus, Ga.

### Leadership Makes Esprit

• "Faith Moveth Mountains," in the January issue, really strikes oil. I found it refreshing to read something containing the true elements of *esprit* because we read so much these days about pay and allowances, medical services, and the commissary and PX. While these things are important, and I would not want to undercut the people who are working to better this tangible evidence of compensa-

tion, I hope we never get away from the basic problem of morale which is developed in the hearts and minds of soldiers.

The article strikes home some extremely good points, but I must criticize it in one respect: it does not stress the importance of leadership in establishing and sustaining *esprit*. Although it mentions *esprit* as one of the eight points that make up morale, I think this important element was subordinated. While it appears to be a truism, there is no doubt that everything a military outfit does or fails to do is a direct reflection of the leader. So many times I have seen the same operation and the same group go from poor *esprit* to good (and *vice versa*) simply through the device of leadership change. One of the important points of the article was the necessity of getting people to believe in themselves. But even in this respect positive results are achieved only when the leader fosters this belief and keeps hammering it home by personal example. I must mention, however, that the author quotes one reference to leadership which is magnificent—the part about the Cavalry colonel in the Philippines who decided to take the field to acquaint his outfit with one another. I'll bet he found that *esprit* mounted in direct proportion to the distance he put between his outfit and the garrison and PX.

COL. FRANK J. SACKTON  
Washington 25, D. C.

### The Cheap Certificate

• Lieutenant Benedict's interesting Cerebration on the cheapness to which certification has been reduced [December] brings to mind a couple of instances of recent devaluation of a man's word.

Before I cleared my last overseas station I and others were given a certificate to sign to the effect that I didn't owe anyone anything (specifically, local merchants). This mimeographed paper was stapled to the standard certificate of clearance (DD Form 137) which, as one well knows, bears a statement to the same effect. The thinking, apparently, was that clearing personnel couldn't read the fine print of Form 137. This in itself wouldn't have been too bad had the mimeographed form not been grammatically of the worst order.

I like to think that the general who commanded this outfit also was required to sign that thing (I won't grace it with the title of "certificate") along with his

officers and enlisted men, before he could pick up his records and catch the boat.

This is but another example.

SERGEANT BALDY

Ft. Benning, Ga.

### *The Men of Bataan*

• The two following letters, published with the express permission of the writers, speak for themselves.

Dear Major Morton:

Mr. Lee and I felt very grateful to you for your article of appreciation and praise of the men of Bataan in *The Army Combat Forces Journal*, December, 1955. We are glad that what our men did for our country has been brought to the knowledge of America of today.

Our son, 1st Lt. Henry G. Lee, Hq. Co., Philippine Division, was one of them. In 1945 when the Rangers went to Prison Camp No. 1 at Cabanatuan, two notebooks of our son's were found buried under his barracks—one of prose and one of poetry. Your article and his poems "Abucay Withdrawal," tell the same story.

Our son was killed January 9, 1945, in the bombing of a Japanese prison ship in Takao Bay, Formosa.

Sincerely yours,

MABEL T. LEE

San Marino, Calif.  
16 January 1956

Dear Mrs. Lee:

Receiving a note like yours is the greatest reward and the highest praise an author can receive. I need hardly say how grateful I am to you for your thoughtfulness and how much I will treasure your letter.

I know your son's poems very well indeed, and keep a copy of his book on my desk, though I regret to say it is not my personal copy. You will find that I made extensive use of his "Abucay Withdrawal," and several other poems in my own volume, *The Fall of the Philippines*.

Sincerely yours,

LOUIS MORTON

Washington, D. C.  
23 January 1956

• Mrs. Lee has kindly given us permission to quote some of the lines from "Abucay Withdrawal" which her son wrote while in prison camp.—THE EDITORS.

... the little scouts with eyes aglow  
Lie on their backs and watch the show  
Calmly puffing their long brown smokes  
Or telling their endless Malay jokes,  
Or using this time of quick alarms  
To wipe the dust from their gleaming  
arms,  
With never a glance for the rasping  
breath  
Where a bomb-slashed comrade claws at  
death.

The white men sprawled in the inch-deep dust

Curse in a tone of hurt disgust  
And slander the noble Japanese  
With four letter Saxon obscenities  
Till with empty guns the silver planes  
Make a last flat dive at the bomb pocked  
road,

And wing to their base for another load  
For a full two minutes the road lies still  
Like a battered serpent too tough to kill  
Then a whistle shrills with a fierce thin  
stab

And a driver heads for his splintered cab  
And moving helmets take up the pace,  
As officers shout and motors race  
And the road is alive beneath the sun  
In a short five minutes the thing is done  
The denim soldiers loot each load  
The dead men dragged by their dusty  
heels

Out of the path of the waiting wheels,  
Dirt in the holes the bombs have made  
And the wounded placed in the jungle  
shade

The gear slips into its worn bright grooves  
The feet plod forward—the column  
moves.

The column moves and the day crawls by  
And the dust goes up to the yellow sky  
And the silver planes with their lethal  
load

Shuttle death from the base to the road  
The dead men sprawl in the dusty lane  
And the wounded live in a world of pain  
But the column moves and each move is  
gain

The day drags on to its brilliant close  
Crimson and purple and ash of rose  
And the night comes in like a closing door  
When the sun drops down on Corregidor.  
And darkness covers the throbbing land  
With the cool caress of a quiet hand.  
The new line glows in the friendly dark  
The siege guns speak and the rockets arc  
And the steel shell whistles its hymn of  
hate

As the enemy moves—six hours late.  
Rifles crackle, machine guns play  
When the tired doughboys take up the  
fray

Bataan is saved for another day  
Saved for hunger and wounds and heat  
For slow exhaustion and grim retreat  
For a wasted hope and a sure defeat . . .

### *Pity the Poor Finance Officer*

• "Better pay for better work," as prescribed by Capt. R. M. Ward [January] is a typical thought of a "staff" officer who has been away from troops too long, or has otherwise been removed from the "working corps" of the Army. How long would it take Career Management and the far-flung finance officers over the world to become so overburdened in notices of pay increases and decreases as to be unable to pay us for even "acceptable" performance?

MAJOR PAUL M. FLETCHER  
Fork Union, Va.

### *From the Netherlands*

• The article by Capt. Patrick C. Roe ("Defend from the Top of the Hill") [August] gave an example of why we should defend from the top of the hill.



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Being assigned to the Netherlands Infantry School, I have recommended that this article be placed as a reference in our library. However, I think the Captain's comparison of potential fire power between machine guns, automatic rifles, and rifles is somewhat inaccurate. (1) Not all the 170 rifles in the rifle company will fire in a position defense. (2) Not every man will be able to fire 16 rounds a minute. (3) The rifle has a much shorter range. (4) Riflemen, because of their greater number, are far more subject to the effectiveness (in all its meanings) of the enemy's fire power.

The fewer number of rounds from automatic weapons may have a considerable effect on the enemy, because the beaten zone is concentrated in a rather small area, usually where targets are thickest. The fire of automatic weapons is far more flexible, too, because of their greater range and accuracy.

On the whole, I quite agree with the Captain's views, and rather regret that I did not have the opportunity to meet him in Korea, where we could have proved his theories.

J. M. GERVERDINCK

Infanterieschool  
Harderwijk, Netherlands

#### CO's 'Corner'

● Last year I had a student company that was made up of two-year draftees, National Guardsmen, reservists, and college men. The last-named were high IQ boys all studying to be specialists. How was I to organize so that the men would feel they were one? It seemed that most of these men resented formations, flag-waving, marching, regulations, and the usual necessary duties of Army life. So I dug up Major Boatner's *Army Lore*, and copied from it items of particular interest. These were placed on the bulletin board, in the "Company Commander's Corner." After a while, even the topkick and some of the men slipped items into it. The whole company became interested.

I left the company, but I have the satisfaction of knowing my "Corner" is still being maintained. Items extracted from books and the service journals and placed where the men can read them will do much toward arousing interest in the service. They must be short and must satisfy curiosity.

CAPT. GEORGE A. NIGRO  
Sec 115B, OSD, TSS  
Fort Monmouth, N. J.

#### Appreciative Word from a Marine

● Having always been a devoted reader of your magazine, I can't tell you how stimulating it was to read the unbiased remarks concerning Col. Frank H. Schwable, USMC, by Major Prugh in "Justice for All RECAP-Ks" [November].

The court of inquiry which sat in judgment of Colonel Schwable had more

at stake than met the eye, for it was their dilemma to decide the fate of a person who had devoted a lifetime of service to his country. It was an unenviable position. . . .

It is reassuring to know that we have people like Major Prugh among our comrades in arms. It is through the logical and realistic thinking of such officers that we further cement the bonds between our respective services.

CAPT. P. X. KELLEY  
USMC

Hq FMFPac, FPO  
San Francisco, Calif.

#### Wow!

● The November issue was loaded.

Are you encouraging a rash of improper dress in repeating the 1919 misfortune of Pershing's unbuttoned pocket? Major Prugh's cap front (page 52) seems bent, and the cap is cocked on his head. Pages 56 and 57 show unauthorized parachute patches on garrison caps of Colonel Raff and General Cook. There's a gay cockiness on service caps through pages 57 to 67 that is not supported by ARs or SRs.

And that cover picture! How many steel helmets the world over are going to be ruined so they won't again serve their intended purpose? Once you burnish the temper out of them, and chrome-plate them, they'll never deflect another bullet. And why the combat boots with dress blues—loused up yet with illegal white laces. Trousers bloused with elastic, trousers tucked into shoes without elastic.

Will that angle of dangle on rifles in such an unorthodox carry cause a new fad too?

How about a campaign for wearing the uniform correctly? Our Chief of Staff just succeeded in making officers dress like officers once again, to the benefit of officers and men and to enhancement of prestige of the Army among civilians. Let's push that sort of thing.

COLONEL STICKLER  
USAREUR

#### The Grass Will Grow

● Francis Scott Key, who wrote our National Anthem, was born on 9 August 1780. He composed the song in a burst of inspiration on 14 September 1814. It was written in a moment of acute national stress, and expressed, as it does still, the characteristic feelings of the country—not desiring to provoke war, but rising with determination to take arms in defense of the national honor when a crisis required it.

For this same reason the Reserve Forces Act was signed on 9 August 1955. Reserve forces could well be called "deterrent forces" designed to deter an aggressor from taking any forward step which would block the way of free peoples. The principle is the same as that for having a good fire department, backed by a

population educated in fire prevention, in a town that has no fires.

The RFA is a step in the right direction, and the cadence of its succeeding steps depends on the service's ability to sell a product of value to the uninformed. According to a recent Gallup poll, Americans generally don't attach much value to a military career, and have but the foggiest notion of what the military services are set up to accomplish. My psychologist friend believes that parents are due a share of the Nation's juvenile delinquency problem. His theory is that many parents, overly concerned with the possibilities of war, atomic destruction, unemployment, and so on, pass on unnecessary fears to their offspring. I think he has a good point. Today's boy has been growing up with the threat of military service hanging over his plans for any career, and Army service has replaced the dragons, witches, and bogeymen we used to threaten out young ones with. Parents are not being good citizens when they cause an unhealthy attitude toward the service to develop in the minds of youths.

If adults who had something to do with the forming of a boy's character had developed within him a sense of duty toward his country, perhaps he would enlist because he felt he was needed, and that it was not all the duty of others to do the job. The kids are not getting a fair shake; neither is the Army.

The RFA will work. All we need to do is make known what we have. Selling a good product, the Army, is aptly expressed by General McAnsh in "Faith Moveth Mountains" in the January issue.

At one of the better Army posts there was a sign on the lawn which read: "Keep Off the Grass. The Grass Will Grow By Command of Major General Doe." Funny thing about that grass: it grew. All it needed was a little attention and some water.

MAJOR GEORGE E. BANIGAN  
Hq Fifth Army  
Chicago 15, Ill.

#### How to Be Integrated

● I read with considerable interest Colonel Bernard's "How Do You Get Promoted?" [September]. Since I am preparing efficiency reports on my subordinates it was timely and worthwhile. I not only agree heartily with his observations, but I feel that considerably more time should be spent in instructing young officers in the importance of this particular duty, repeating this instruction frequently up through CGSC.

Something happened today, however, that makes me wonder whether a conscientious, thorough preparation of efficiency reports by a majority of officers cannot be completely nullified at higher levels. Having spent the best part of a week in preparing my reports, including calling in each of the officers and dis-



cusssing his case, I felt I had done at least a fair and acceptable job. While standing in the PX line I could not help overhearing this conversation between an officer who was directly behind me in line and a general officer who happened to pass by:

"Hello, General! Nice to see you, sir. Did you have a nice Christmas?"

"Hello, Blow! Yes, I did. How are things with your department?"

"Fine, sir. By the way, I found a lieutenant who seems like a good prospect for RA. He was a distinguished military grad from ROTC; didn't want it then, but appears interested now."

"Good, good. We can use 'em. Is he doing a good job?"

"Yes, sir. He's young, needs to learn, but is willing and pretty sharp."

"Well, you know what to do. You rate him. Lieutenants are about due now. Just give him all sevens on the back of the form. [I assume the general meant the highest box in each case, since some are higher and some lower than seven.] Build him up on the front and he'll be in. Only the top-rated guys can make it."

This went on in the same vein for a few minutes, with the colonel assuring the general he would follow instructions. I'm wondering if this could be the reason why so many excellent officers were passed over for integration back in 1947-48, while others were chosen.

#### COLONEL QUERY

#### Military vs. Civil Jurisdiction

● Recently the Supreme Court decided the now famous Toth case, which rendered Section 3 (a) of the UCMJ unconstitutional. This section provides that an ex-serviceman is still subject to military jurisdiction if during his service he committed an offense which is punishable by imprisonment for five years or more, and that that crime is not punishable in a civil court.

The question in the Toth case comes down to whether Section 3 (a) goes beyond the power of Congress to make regulations for the government of military personnel. And even if it does not go beyond the power of Congress, is that section so arbitrary and unreasonable as to violate the Due Process clause of the Fifth Amendment? Assuming this to be the narrow issue of the Toth case, I contend the case was wrongly decided.

Mr. Justice Black, in the majority opinion, held the section unconstitutional, in that it encroached on federal court jurisdiction, where an accused has more Constitutional safeguards than he has before a military court. He advanced the argument that guilty persons would escape punishment. That is not tenable, since Congress has power to place jurisdiction for trial of such cases in the federal courts. It appears that Mr. Justice Black argued that Congress under Article I has

no power to pass such a statute, but that in any case such a statute is unreasonable and a violation of the Due Process clause.

I think Mr. Justice Black's argument is unsound. I believe a court-martial offers the accused at least as many procedural safeguards as he would receive in a federal court. True, the accused does not have the right to indictment by grand jury nor trial by jury, but he is compensated for those losses. Under Article 32 a more than adequate substitute for grand-jury action is provided by the investigating officer, who determines whether there is sufficient evidence to warrant trial. Before a grand jury the accused cannot cross-examine witnesses or even be present when they testify. If he testifies in his own behalf he cannot be represented by counsel. Before an investigating officer he not only can be present, he can cross-examine, and be represented by counsel. While there is no guarantee of trial by jury, at least insofar as peculiarly military offenses are concerned, a board of officers is better able to adjudge both guilt and punishment than the layman.

In a court-martial the defense has full access to all the prosecution's evidence, while in federal courts limited rules of discovery sometimes mean the defense is surprised during the trial. It should be noted that the privilege against self-incrimination and the right to have invol-

untary confessions suppressed are given broader application in military courts.

Even if we assume Mr. Justice Black's major premise that there are more procedural safeguards in civil courts, the unconstitutionality of Section 3 (a) does not follow. Certainly the assumed superiority of civil courts in the trial of service-connected crimes should have no effect in the construction of a Constitutional power of Congress. The argument that the accused has a better chance of escaping punishment in a civil court should not influence a conclusion as to Constitutional power.

If we accept the argument that Congress has power to pass Section 3 (a), then the ultimate decision of where to place jurisdiction in these cases is for the legislature to decide. Congress could have rightly felt that it was essential to Army discipline that ex-servicemen be tried by military courts. The Supreme Court has on occasion tended to forget that Congress is an elected branch of government entrusted with determining policy. The Supreme Court merely puts a brake on any arbitrary or unreasonable conduct by Congress. In my opinion Section 3 (a) of UCMJ is within the Constitutional power of Congress, and is neither arbitrary nor unreasonable.

LT. THOMAS M. LEWYN  
Fort Tilden 95, N. Y.



**"FLYING  
BARREL"**

A research contract on ring-wing type aircraft has recently been awarded to Kaman Aircraft by the Office of Naval Research. Also known as an annular-wing, it has been dubbed the "flying barrel". This marks another important step in Kaman's ten year history of special aeronautical research . . . in addition to production of Kaman helicopters for National Defense.

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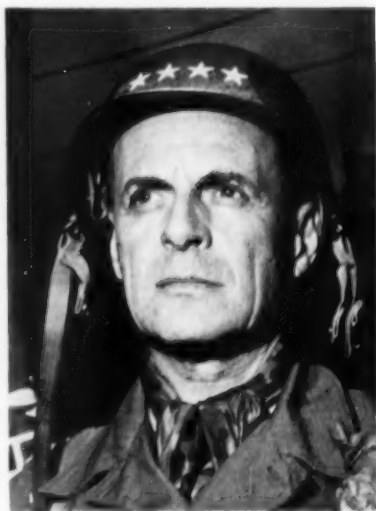
## THE ARMY'S MONTH

### General Ridgway's Difficulties

It was never a secret that during his two-year tenure as Chief of Staff, General Ridgway was opposed to the direction military policy of the United States was taking the Army. No reasonably informed person had to read his recent articles in *The Saturday Evening Post* to learn that. What aroused interest was the explicit and personal accounting General Ridgway gave of his difficulties. One consequence was the calls for a Congressional inquiry into the subject. And while this came off behind closed doors, the nature of the questioning was not announced. The questioning could have taken either of two lines. If the legislators were interested only in General Ridgway's views of the state of the U. S. Army they got some valuable advice but also missed an opportunity to look into the basic question of the relationship between the military chiefs of staff and the civilian heads of the Department of Defense.

The overtones in the magazine articles make it very clear that the two years he served as Chief of Staff were tragically frustrating to General Ridgway. His whole life had been spent in preparing for this assignment and yet, when it came, the high standards of soldierly conduct and personal rectitude that were second nature to him served only to mute his voice and his effectiveness. This does not mean that General Ridgway didn't argue the Army's case vigorously within the private conference rooms in the Pentagon or in closed sessions on Capitol Hill. It simply means that this wasn't enough, given the times and the existing circumstances.

He repeatedly emphasized that the Army's commitments, instead of lessening as the available forces declined, were increasing. The need for a strategic reserve of sufficient strength and state of readiness to be respected by potential aggressors was recognized by the Administration but General Ridgway was never able to get forces enough to create it. Indeed the Army's ability to reinforce its overseas forces had an emergency arisen declined after 1953.



GENERAL RIDGWAY

Critical requirements for additional anti-aircraft artillery battalions for the air defenses of the U. S. were met during a period when the total strength of the Army was being reduced year by year. These plus other factors undoubtedly led General Ridgway to conclude that the nation's strategic requirements, as conceived in the "new look," were being dangerously disregarded.

The difficulties of his position were not made easier by the dissatisfaction with existing conditions of service that led some excellent officers to resign and many key noncommissioned officers to

decide not to reenlist. True this dissatisfaction was manifested in all of the services but it was aggravated in the Army by the public pronouncements of many civilians who should have known better and air-power addicts that armies were out-moded. That General Ridgway was able to overcome these difficulties and reinvigorate the spirit of the Army is a credit to his leadership. The resignation rate among officers dropped and for many months the Army led all of the other services in the reenlistment rate of regular enlisted men.

So far it is impossible to say whether General Ridgway's public protest will be more successful than the official ones he made behind closed doors while he was Chief of Staff. Comment by the nation's newspapers has been mixed. A striking example of the mixture is provided by the opinions of two influential papers.

In the opinion of *The Baltimore Sun*, General Ridgway permitted himself to become "overheated." "To attack the motives of opponents is too often the recourse of those who have failed to make their case. We are sorry that General Ridgway resorted to such tactics in this instance," *The Sun* concluded.

*The St. Louis Post-Dispatch* looked at it differently. It said that General Ridgway's "strong criticism" could not be dismissed in the "cavalier" manner that Mr. Wilson had dismissed General Ridgway's letter. *The Post-Dispatch* concluded that "Everyone who is interested in national defense will want the strongest reassurance that the present Joint Chiefs of Staff are not just yes-men set up to approve a preconceived defense program based on budgetary reasoning. They will want to know that they are military advisers who are free to give objective and non-partisan opinions to the best of their ability."

This comment brings up the larger question, one that has not been far below the surface and sometimes above it ever since the Department of Defense was established in 1947. It is not a question of civilian control of

### CORRECTION

In an inexplicable error, for which the editors take full responsibility, the *Combat Operations Research Group* at CONARC was referred to throughout the article, "CORG Plans Tomorrow's Army Today" in the February issue, as the *Combat Organizations Research Group*. We have tendered our apologies to Dr. F. C. Brooks and Colonel L. L. W. Merriam, the authors, who certainly know the name of the outfit of which they are respectively Director and Deputy Director, and we hereby apologize to our readers.



## EXERCISE MOOSE HORN

A recon tank of the 4th Infantry grinds through the snow near Fort Greely, Alaska, to set up a blocking position. A sunny day brings rising temperatures so the warmly-clad ski soldier at far right unzips his outer clothing. The tractor-powered sled train drags supplies to distribution points near committed combat units.



the military but a question of what use the civilians who are in control make of their military advisers and the advice they give.

Indeed, this question seems more pertinent today than in the past, since General Ridgway's difficulties, as he describes them, indicate that our military chiefs have less opportunity to have their considered military opinions heard than they did half a dozen years ago or even twenty-five years ago. There was never any question but that Generals Eisenhower and Bradley,

Spaatz and Vandenberg, and Admirals Nimitz, Denfeld and Sherman had a right, if not a duty, to speak plainly to the President and to the Congress on the needs of their services as they saw them. And twenty-five years ago, General MacArthur in his annual reports publicly criticized the military policy of the United States and suggested programs that were completely at odds with the professed policy of the Administration in power, and did this without reprisal or even an audible shushing sound emanating from either

the Secretary of War or the White House.

For a contrast, as presented in the present situation, Hanson W. Baldwin had pertinent comment in a recent issue of *The New York Times*:

"Since World War II there have been two complementary and dangerous trends. One has been the subordination in the formulation of strategy of the Joint Chiefs; the other, the tendency to use them for or against the political administration in power.

(Continued on Page 54)

## REQUIREMENT: Guided Missiles for the Army



**T**HE Intermediate Range Ballistic Missile (IRBM) will become the Army artilleryman's long thrust—the weapon that will permit him to play to the hilt his vital role of providing fire support to the Atomic Age U. S. Army.

But the IRBM is only one of the many guided missiles for which the Army has a requirement. Others in this family of weapons are surface-to-air antiaircraft weapons, of which the operational Nike is a conspicuous example. The Corporal is an example of an operational surface-to-surface guided missile. Another type of guided missile for which the Army has a requirement is the reconnaissance missile.

The nature of the tasks that face an atomic-age army require it to have a versatile collection of surface-to-surface missiles. These will begin with short-range assault missiles of great penetrating power that can destroy armor and fortified installations. The next requirement is for guided missile weapons that can supplement and extend the ranges of existing light, medium and heavy field artillery pieces. This type of weapon will deepen the battle area and enable artillerymen to provide both supporting and counterbattery fire in larger volume than ever before envisaged. The long-range IRBM will be the big boy among Army surface-to-surface guided missiles. The Army's requirements for this weapon are developed in greater detail in the following pages.

The Army recognizes that each of the armed services has a need for organic guided missiles. The Army itself is making a maximum effort to develop, build and introduce into operational use the several kinds of guided missiles it requires.

The Army is fortunate in that its leaders of the last decade were far-sighted enough to establish a capable development team at Redstone Arsenal, Ala., and to hold it together. Consequently today the Army has a guided missile development team with more operational experience than any other comparable group in the world. The Army also has in existence working arrangements with laboratories and engineering plants operated by universities and industrial organizations.

Thus the Army has the requirement for organic guided missiles of many kinds and it has the know-how to design and build them.

What the Army needs to fill its requirements is assurance that the green light will stay green, and this includes not only the money for the projects but freedom from disruption or threats of close-down.

In the pages that follow, we emphasize the Army's need for the intermediate range ballistic missile by showing first the threat that requires the development of the IRBM at the earliest possible moment and then why and how the Army will use it.





# The IRBM: The Army has the Know-How

## *The Threat We Face*

**T**HE threat we face today is an old one, compounded of American complacency, smug belief that we are ahead of everyone else, and an it-can't-happen-to-us certainty. But it can, responsible men who have been right before, are saying. They tell us the Soviet Union may develop an operational intermediate range ballistic missile (IRBM) before we do, and before we even get off the ground with an intercontinental ballistic missile (ICBM).

The immediate crisis is who will get the 1,000-1,500 mile range IRBM first. What would be the result if the Soviets beat us to it?

NATO would be in dire peril. Our overseas SAC

bases (and General McAuliffe's Seventh Army and General Norstad's U. S. Air Forces in Europe) would continue to exist only by sufferance of the Soviets. This would mean great dilution of our deterrent strength.

It would put our friends in Europe, North Africa, the Middle East, Asia, Japan and the Philippines all under the very guns of Soviet power.

It would largely cancel out the worldwide position of strength (actual and potential) we have maintained for many years and at great cost.

Can this be? Is this not Cassandra calling?

**S**ENATOR Henry M. Jackson, who has always taken a realistic view of Soviet technological ability and military strength, says it can happen. "We do not know



**THE EVOLUTION OF WEAPONS.** The top row shows the development of artillery weapons beginning with the slingshot. The bottom row shows the development of small-arms and hand-carried crew-served weapons.

exactly when the Russians will get the ballistic missile—but there is grave danger that they will get it before we do," he said in the Senate recently. He thinks the Soviets may "fire a 1,500-mile ballistic missile this year—1956." And if they do, he said, it "could turn our strategic thinking upside down." Put yourself, he suggested, "in the place of a government leader of France or West Germany or England or Pakistan or Japan" and "imagine that Soviet Defense Minister Zhukov has just invited the military attachés of the world to meet at a missile site near Moscow.

"Imagine Marshal Zhukov then explaining that he is about to press a button which will fire the world's first 1,500-mile ballistic missile. Marshal Zhukov might say that this demonstration missile carried only a TNT warhead. But he would undoubtedly add that a hydrogen warhead could be substituted. Standing in a concrete blockhouse for protection, the military attachés would see the missile launched. Some 1,500 miles away—perhaps in the wastes of Soviet Central Asia—another group of free world observers would be assembled. Mere minutes later they would witness the crashing explosion of the missile at the end of its journey.

"Picture what might happen next. On the wall of the concrete blockhouse would be a huge map, outlining in vivid red the range of the Soviet missile. This range would embrace all of Western Europe, all of North Africa and the Middle East, most of South and Southeast Asia, the Philippines, Formosa, Okinawa, Korea and Japan."

Then, added Senator Jackson, if Premier Bulganin a few days later courteously suggested that the NATO powers dissolve their alliance, "our most redoubtable supporters might falter. It is well-nigh certain that crucial allies would be forced into neutralism, or even into tacit cooperation with Moscow."

Other responsible persons have uttered similar warnings. Senator Symington, the former Air Force Secretary and insistent advocate of all forms of military power, has been even blunter, if possible. And so have other members of the Congress.

### Challenge and Opportunity

Every American should be grimly determined that we shall not be beaten in the race for the IRBM. And every man in Army uniform is even more deeply involved, if that is possible. For the development of an American IRBM ahead of the Soviets represents a challenge and an opportunity to the U. S. Army. The challenge is to prove again that it is capable of producing a weapon of the most advanced technological difficulty. The opportunity is to mesh the weapon into its weapons system and tactical concepts.

The possible tragic cost if we lose the race for the IRBM makes it imperative that we develop it with all possible dispatch. But even if it were a crash program (which it isn't) the development of the IRBM would be an Army project of high priority. For the IRBM is essentially an Army artillery missile whose most pregnant use will be in extending the field artilleryman's range. This so that he will be able to furnish fire support to the modern highly mobile, fast moving, deep penetration combat formations the Army is creating. Without the IRBM, the full potentialities of this new concept for deep and dispersed penetration cannot be realized. With it and other planned improvements in tactics and weapons we can have an unparalleled Army, one capable of assignment to missions that require the most selective tolerances, one completely flexible to any situation that faces it and able to adjust rapidly to any change; a force capable of the fast and violent shock action that numbs and panics an enemy, or of the steady,

## THE SECRETARY 'CARRIES THE BALL'

SEVERAL months ago when it was again proposed that all missile research and development work be centralized and that the Army's experienced team of scientists and engineers at Redstone Arsenal be broken up, Secretary of the Army Brucker made such strong and insistent representation against the proposal that it was shelved. His leadership in arguing for uninterrupted continuation of the extremely successful guided missile program cannot be underestimated.

Mr. Brucker has also publicly expressed his interest in



SECRETARY BRUCKER

advanced weapons for the Army. Recently he said: "We are not pausing for even an instant in our search of the entire spectrum of technology for new applications which will give us still better weapons and equipment of all kinds, precisely tailored to the Army's needs. We cannot risk coming out second best to any nation in the development of military matériel. Hence we are giving our research programs the highest priority. Your Army pioneered in the military conquest of the air, and established our first air arm, which became the Army Air Corps and today's great Air Force. [The Army] 'carried the ball' throughout the early stages of atomic development which culminated in the dropping of the first two atomic bombs—the only atomic weapons actually used in warfare. It is going to keep on heading the parade."



unrelenting pressure that corrodes and wears down his will to resist. If this seems somewhat overstated, adjust your sights. For it isn't. The full potentialities of a properly balanced, well led, trained, equipped and weaponed Atomic Age Army have never been adequately measured or portrayed. But the IRBM is essential to it.

### **Capability and Desire**

A clear understanding of the reasons for the Army's primary role in the development of the IRBM is needed. This understanding is in addition to the very vital reason that the IRBM will, as we have said, and as Major Parson will demonstrate, a field artillery weapon and therefore as logically a development by Army Ordnance as the M1 rifle.

The Army has the know-how. Army research and development agencies and the Army Ordnance Corps have devoted major efforts to guided missiles in recent years. At Redstone Arsenal the Army has a group of scientists who have spent more years in guided missile work and have developed more operational rockets and missiles than any other comparable group on either side of the Iron Curtain. Foremost among them are the former German scientists, led by Dr. Werner von Braun whose

work in rockets and guided missiles goes back to before the Second World War.

Another reason for the Army's unequalled role in the development of the IRBM is that it has the desire as well as the capability to push it through to successful completion. It believes in the IRBM and sees a vital need for it. The Army looks upon the IRBM not as something in the "nice to have" category, but as an essential addition to its family of weapons. Nor is it psychologically hamstrung by previous commitments and adherence to other methods. For the IRBM instead of replacing any present Army weapon is a new weapon that will fill a new and vital Army need.

The Army's approach to the fast development of the best possible IRBM need only be contrasted with an Air Force attitude which has been expressed in these words: "We [of the Air Force] do not consider that it [the intermediate range ballistic missile] will have any revolutionary effect on the military situation." And, as though in rebuke to Senator Jackson: "Its availability to an enemy would not alter the basic situation."

In the face of this kind of attitude it was wise for Secretary Wilson to give the Army (with the Navy) responsibility for getting the best IRBM fast—and first.

## **A SOLDIER WRITES A BOOK ON GUIDED MISSILES**

In *Guided Missiles in War and Peace*, to be published on 6 March by the Harvard University Press (161 Pages; \$3.50), Major Nels A. Parson, Jr., wrote:

Some SSM's [surface-to-surface missiles] will be needed for attacking distant tactical and strategic targets that directly influence the land campaign. Such high-level "artillery" will have a range of several hundred miles.

Technological advancements have caused many targets once considered strategic, because of their distance behind enemy lines, actually to become tactical. Indeed, the concept of dividing strategic and tactical employment by a measure of distance is an erroneous one. If troops or matériel that can be moved into battle within a few hours are tactical targets, then is not an enemy airborne division assembling a thousand miles away for a combat mission a tactical target?

A modern enemy force will have the capability of attacking with airborne units or long-range weapons only hours or minutes after launching from distant points. The army commander must have the means under his direct control to attack these very real and immediate threats to his command.

Long-range SSM's are also needed because the army will attack over great distances. Not only are enemy air fields, supply centers, strategic reserves, and other targets moving deeper into hostile territory, but also one's own troops. A modern army will no longer be forced to accomplish an important mission at a location hundreds of miles away by painfully fighting overland



**MAJOR PARSON**

to the objective. Airborne units can now move directly to that objective. Within the next ten years airborne movement will become a normal operation for almost all combat units. SSM fire support of such maneuvers from distant launching sites will be essential.

The question sometimes arises, is this land or air warfare? It is primarily land warfare but the two cannot be separated. The employment of long-range missiles in support of the ground effort represents coordinated action toward a common goal. Such unity of purpose can be achieved only by unity of command.

The Editors of **ARMY** asked Major Parson to expand on these few paragraphs by developing in greater detail the Army's need for a surface-to-surface missile of a range of 1,000 to 1,500 miles. This he has done in the article that begins on the following page. Major Parson is an artilleryman. He is a 1944 graduate of the Military Academy and earned a Master's degree in mechanical engineering from the University of Southern California. It was at USC that he began his work in guided missiles. He is now Chief of the Review and Analysis Branch, Combat Developments, at CONARC.



# The IRBM

## ARTILLERY-SUPPORT WEAPON

**MAJOR N. A. PARSON, JR.**

**T**HE destructive power of the nuclear warhead has forced military organizations into small, dispersed packages. For survival, Army divisions and lesser units, naval fleets and task forces, and aerial formations are becoming smaller and more mobile. The two-faced nature of modern war requires the Army to be able to fight with or without nuclear weapons. The forms military aggression may take are numerous and the U. S. Army must be capable of meeting and countering all of them. It must be prepared to cope with total or localized warfare and to use either nuclear or non-nuclear weapons in the battle. Whatever form it takes, a highly trained, competently led, powerful, strategically and tactically mobile army in being is essential. Such a force is a powerful deterrent; it is also a prime instrument in a limited war, and the armed power capable of moving into the final strongholds of the enemy and forcing his complete submission, if the deterrent should fail and global war result.

How does the Army propose to fight under these conditions? How shall it move and how shall it provide the necessary fire support for the forces that have nothing between them and the armed enemy?

The problem of adequate and timely fire support has been an important one since the very earliest days of the artillery art. But today it is critical. The U. S. Army believes it can solve the problem of artillery support if it is given the opportunity to develop, produce and integrate the necessary weapons and equipment into its combat organizations.

If we carefully examine the nature of ground combat of the future we will begin to grasp the nature of

the Army's fire-support problems and find some indicated solutions. There is no better, nor more authoritative source of the nature of the battlefield of the future than the Chief of Staff of the Army. In an Army pamphlet—"The Army in the Atomic Age"—he recently described that battlefield. The several indented excerpts that appear in this article are all from that source. After each there is a consideration of the impact of the statement on the fire-support problems of the Army.

Future combat will be characterized by greatly increased tactical and strategic mobility. . . . In the offensive, men and equipment must move from dispersed positions with great speed to the focal point of the attack. . . . Attacking forces must be able to seize an objective without inviting disaster from enemy attacks. Once an objective is seized, attacking forces must be capable of rapid dispersion to avoid a counter blow. . . . Defensive formations in depth over a wide area are more necessary than ever before. Elasticity is the basis of defense. Because of the destructiveness of atomic weapons, defense on an atomic battlefield must consist of staggered tactical formations dispersed in great depth. Such a defense places heavy emphasis on reconnaissance and surveillance to cover unoccupied areas. Units must be so composed and dispersed that they can absorb atomic strikes without shattering. They must be conditioned to accept as normal, combat in any direction. At the same time, units must be capable of swift movement to prevent enemy exploitation of his strikes, and to maneuver the enemy into forming lucrative atomic targets.

**B**EFORE mechanization the speed of armies was about two and a half miles an hour, and the greatest distance that average units could move without rest and be able to accomplish a combat mission upon reaching

**. . . Answer to the artilleryman's dilemma**





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their destination was perhaps 25 miles. By use of the most modern armored-personnel carriers and tanks, we can perhaps multiply by four the speed and range of cross-country movement, before stopping to refuel and repair vehicles. Excessive fuel consumption and limited trafficability of ground vehicles impose this limit. How much effort will it take to raise again this ground mobility of 10 mph for 100 miles? It will take a very great effort, yet we must *move* to survive. To be fixed is to be destroyed. What order of magnitude of improvement of mobility is needed? The factor is at least ten, for both speed and range. We must and we will increase the 10 mph for 100 miles to 100 mph for 1,000 miles. The United States Army must be capable of thrusts many hundreds of miles in depth.

This places the artilleryman on the horns of a dilemma. His mission is to provide fire support for mobile forces that expect to penetrate deep into hostile territory, by-passing fragmented, but battle-able enemy forces as they move on. If the artilleryman follows behind these mobile forces, he is in acute danger of being attacked and overrun by these hostile forces. If he adopts the slogan of the battlewise infantrymen of World War II and decides that "safety lies forward"—in the closest possible proximity to the combat arms he is supporting he must have the same mobility they have. But the size and complexity of most of his weapons preclude this. The only alternative the artilleryman sees is such an extension of the range of his weapons that he can site them in friendly territory—many miles, perhaps hundreds, from the troops he is supporting.

To understand the fantastic nature of this fire-support problem, let's look further at the organization and battle methods of the forces the artilleryman is pledged to support.

To give us this essential superior mobility and to meet the threats of atomic weapons, our basic combat units will probably take the form of small, integrated battle groups of all arms—infantry, artillery, armor, and engineer, with the required service support. These units must be semi-independent, self-contained, and capable of operating over extended distances on a fluid battlefield for prolonged periods with minimum control and support by higher headquarters.

**W**HOSE concept of operations is this? asks the artilleryman. Must he now be a part of a small all-arms battle group that accepts combat in any direction as normal? This is neither "armored," nor "airborne," nor any other existing concept of land warfare. For lack of a better name we can call it what it most resembles: naval warfare. The Navy fights as small, self-contained units (ships) with fire support right on board. These ships are mutually supporting, yet dispersed and mobile. They can range far and extend their influence

over a far greater area than they actually occupy at any given time. They can be given fire support from far distant points in the form of carrier-based air strikes and in the form of long-range, guided-missile fire.

And so it will be in land warfare. To get off the dilemma the artilleryman must accept both alternatives. He must join the new battle groups and he must provide fire support from ever greater distances.

Superior mobility and fire power will mean little unless we can feed, supply, and transport the combat units by the most modern means under the most competent and effective control. The supply and transportation system must be capable of flexible and rapid operation, eventually with great reliance on aerial transport. It must be capable of quick adjusting to changes in task force organizations and frequent changes in the location of widely scattered and highly mobile combat units. Since land lines of communications and large logistic installations are vulnerable to atomic attack, we must rely upon a system of small depots, possibly with some degree of reliance on aerial delivery to the depots and from the depots to the combat units.

**H**EREIN lies the clue to the second major advantage of an intermediate range missile. Large guided missiles require significant logistic support. As the future field army will find itself, more often than not, deep in enemy territory, the logistic tail will be long and in large part air transported. Rather than increase that logistic load the artilleryman will require missiles with extended ranges, ranges that will permit him to fire from deep in friendly territory. Perhaps from sites as near as possible to the dumps and depots where his projectiles, fuel, food and other supplies are stored.

The weapons system available to the units will include guided missiles (both ground-to-ground and ground-to-air), rockets, artillery, and demolitions employing both atomic and conventional explosives. Supporting fires will include those of guided missiles and rockets directed from divergent and far distant points to achieve the fire superiority necessary to support the attack.

**T**HIS makes the point even clearer. Either fire-support weapons must accompany the battle groups or they must fire from the far distant rear. It is time to take a closer look at this problem of providing fire support from an extended range. The basic field artillery problem is still there. In past wars the infantryman was supported by weapons which could not always go anywhere he could. In the attack he would jump off from an area just in front of the artillery and move forward to his objective. He would seize the objective and hold it or accomplish whatever other mission was required of him. The entire action, requiring from several hours to several days, would be supported by artillery which

(Continued on Page 53)



*there were two Texans...*

As youths both had set a goal. One to "crew," the other to pilot the airplanes that make the U.S. Air Force a thundering voice for tranquillity. Now, other young men in every state have similar goals.

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*Secretary Brucker*

# WHY THE ARMY NEEDS WINGS

**COLONEL W. B. BUNKER**

THE Army has a big stake in all aspects of aviation. To hold that it is not directly interested in air logistics, air superiority, and even strategic airpower, is equivalent to saying that animals are unconcerned with the air because they live upon the ground. As a matter of fact, aviation considerations permeate all phases of Army plans and operations: strategic air logistics to move critical items of supply and equipment to deployed forces; air transport to deploy airborne forces; aerial reconnaissance is vital to the commander in planning his operation; air cover is essential for his freedom of movement, and air support is indispensable to his maneuver. It has been estimated that over seventy-five per cent of the ground commander's operation has something to do with aviation. The proper integration of aviation into the Army will give it a predominant role equivalent to the fire power and shock mission of cavalry or armored forces.

Our policies today are that the ground commander should look to the Air Force for such support as he requires from aircraft, and that these elements should not be incorporated within or directly assigned to the Army. Thus, his requirements for strategic air lift are met by applying to the Joint Chiefs of Staff for an allocation on the Air Force-operated Military Air Transport Service. His requirements for logistical or airborne

**Colonel William B. Bunker** is a Transportation Corps' expert on use of helicopters, and is President of the American Helicopter Society. He graduated from the Military Academy in 1934 into the Cavalry, transferred to the Engineers in 1935, and to the Transportation Corps in 1950. During World War II he was Deputy to the Assistant Chief of Transportation. In 1948 he was in charge of terminal operations in the Berlin Airlift. Last year, after a tour as Commandant of the Transportation School, he took command of the Transportation Corps Matériel and Supply Command in St. Louis. This is his fifth contribution to this magazine. Others include "Guarding the Home Front" (March 1955) and a feature review of General Smith's *U. S. Military Doctrine* (July 1955). Colonel Bunker is a member of AUSA's Executive Council.

lift within a theater are placed with the joint theater board controlling the Troop Carrier Command. Requests for close battlefield support are relayed through an elaborate joint communications net to a central controlling agency which allocates the Tactical Air Force effort. In every case, however, command control of the operating aviation unit is retained in Air Force hands. This pattern is based on two major premises: air power is indivisible and must be centrally managed to insure its employment in the area of maximum utility; secondly, employment of air power must be in the hands of experienced air officers familiar with strategic and air superiority considerations as well as the battlefield support problems of the Army, so that a proper evaluation can be made of relative remunerativeness of targets.

With the recent expansion of Army aviation, another consideration for its integration has been raised in the Air Force. It is contended that there must be a central flight control center to insure the proper use of the air space and to avoid accidents, particularly in bad weather. Also, a central register of all air activity is required in order to obtain proper identification of hostile aircraft and to avoid attack against friendly craft of one service by those of another. This would appear to be a problem of administration which could be solved in a manner similar to that employed by the Civil Aeronautics Authority to control aircraft of any number of different companies in the same area at the same time.

**A**S our Army is streamlined and dispersed to meet the threat of atomic warfare, it is faced with the fact that its close air support is getting farther to the rear. Since modern Army theory does not envisage area control such as obtained in World War II and Korea, but rather a series of relatively independent and isolated units, there is no protection to air facilities in the close rear areas against infiltration attacks by partisans or even small organized units. As a consequence, air commanders are planning the removal of their vulnerable facilities to areas outside the combat zone. New tactical aviation is being designed with combat radii of five hundred or a thousand miles, and its larger facilities made more complex by the heavy, elaborate equipment it must support. If aerial support of ground operations were of secondary importance, this separation between the operator and the user would not be of great significance. It is precisely because the Army does recognize

close-support aviation as an aid in the accomplishment of its missions that makes it dissatisfied with the present arrangement. If the requirement for air support were not vital and continuous, then the concept of seeking this support from another service with its unavoidable delays and misunderstandings would be sound. When, however, aviation assumes the same close relationship as artillery or armor to the tactics of ground forces, it must occupy the same command relationship. Aircraft must be available to the independent commander if he is to retain his freedom of action.

*A generation of airmen who  
do not understand Army problems*

The transfer of almost complete responsibility for aviation matters to the Air Force has had another detrimental effect on its use by the Army. While the early Air Force leaders had all been trained in the Army and had a good basic understanding of the Army's practices and needs, the large accessions to this arm since 1945 have drawn it increasingly farther away. Many subordinate leaders of air units do not understand or sympathize with the problems of the units they are designed to support. In fact, a ground-force point of view is probably unsound in a member of a service designed to wage aerial warfare. Air commanders cannot appreciate the feeling of urgency and importance which ground commanders attach to individual enemy tanks, machine-gun nests, and similar problems, or the importance of minor terrain features to their freedom of movement. The same kind of situation applies to Army leaders who do not exploit the airplane as a tool. The famous 280mm gun, designed to deliver a small atomic shell under the control of the ground commander, is a large and unwieldy weapon; its over-the-road mobility is seriously limited and its tactical mobility negligible. If the Army had a light tactical airplane it could probably do the same job with many times the flexibility and at a fraction of the cost.

*An airplane is not an  
interchangeable weapon*

If an airplane could be used interchangeably to battle for air superiority with the enemy at thirty thousand feet, to conduct strategic air warfare two hundred miles behind enemy lines, and to give close support to Army troops, there might be some justification for centralized

control of all air operations. If questions of the relative priority between the various aerial operations and the missions of supporting ground troops or interdiction of the battlefield could be delayed until other more important objectives had been secured, one all-encompassing air arm might be logical. If the same aircraft could successfully engage another fighter or bomber, fly far over enemy territory to cut communications and destroy facilities and at the same time deliver light bombs and napalm on enemy troops close against our friendly forces, a single tactical air arm might be a good solution. Or, if, in the course of a war or a campaign, any one of these missions were susceptible of completion before the end of the conflict, it might be economic, even if not prudent, to postpone one of the other missions until the aircraft were available and then use a somewhat less effective aircraft to perform the second mission. The fact of the matter is that since the dissolution of attack aviation in the 1930s, the Army has been gradually shorn of the air power weapon it most needs. Close battlefield support and even close interdiction operations in World War II and Korea were frequent and effective, but the full integration of this form of aviation as developed by the Nazi blitzkrieg or in the Red Army, has not been experienced by the United States Army. Until aviation is exploited to replace most artillery and antitank fire and closely associated with all ground operations, we will not get full use from the air weapon.

**A**IR Force doctrine today places decreasing emphasis on missions in direct support of ground operations because of their unremunerativeness from the airman's point of view. Air superiority is emphasized and increasingly the tactical air arm is seeking a share in the more spectacular and better understood mission of strategic bombardment. Aircraft, as they become faster and longer-ranged, have become increasingly difficult to manage in low-level precision flight near ground targets

—modern fighters are all but blind except in their immediate front, and their control in flight requires an imposing array of electronic assistance. At the high speeds the modern aircraft requires to engage in air-to-air combat, it cannot identify ground targets or obviate the inadvertent attack of dispersed friendly forces in an active combat situation. On the other hand, an aircraft required to operate at moderate altitudes and deliver napalm, light bombs, machine-gun fire or rockets on ground troops, does not require the elaborate electronic gear, high power and other expensive components of an interceptor. It is interesting to note that in meeting the problems with which they are more familiar, Air Force planners do not accept multipurpose aircraft. Douhet proposed, and early Army Air Force doctrine seemed to accept, that the bomber should be its own escort and even be suitable as a transport aircraft. Today the air-development agencies justify specific aircraft for day and night interceptors, for long- and medium-range bombing—in fact for every problem except the one they do not intimately appreciate: front-line battlefield support.

The first use of aircraft in war was to obtain better battlefield intelligence. But that first purpose is now forgotten and the U. S. Air Force does not have a single adequate observation airplane today. In order to achieve efficient transportation costs, Air Force logistical aircraft have become larger and faster, and consequently less useful to the Army in the field. Today's transports require long heavy-duty runways and elaborate maintenance facilities for their base of operation, and though they are supposed to be able to use moderately improved forward fields, their cost and their delicacy render such operations objectionable. Even the new "assault" transport aircraft is undergoing modification to increase its air speed at the sacrifice of its versatility. While once aircraft could deliver supplies within a few miles of our troops, now this can be done only through an elaborate parachute delivery system designed to make

For strategic airlift: the C-124 Douglas Globemaster can carry 200 men or 25,000 pounds



Long in use and standard plane for airborne jumps: the C-119 Fairchild Boxcar



C-119 Boxcar is also widely used to resupply combat units by airdrop



the aerial phase of the operation less difficult and hazardous.

*Some aviation is  
not airpower*

What is not equally obvious is that not all aviation is air power. That aviation whose mission it is to allow naval forces to exercise their influence on the maritime activity of the enemy is an extension of sea power, and the fact that it is airborne is as inconsequential as is the fact that another portion of the fleet operates under the surface of the sea. Similarly, that portion of aviation which must be used with a modern army to allow it to defeat the enemy ground troops, to protect itself against the opposing forces and to facilitate its operation is an inseparable part of an army's power. The concept of "air power" is properly restricted to that aviation and its supporting elements which are applied directly and independently against the enemy, and are used in the defense and the protection of our territory against the enemy's air power, or are used in the over-all battle for aerial supremacy. Just as an effective navy requires land and air elements as well as floating weapons, so an army must contain that aviation intimately associated with its mission.

We have had eight years of experience with our tri-service organization and the test of a continuing international tension and a small war. The pattern of our international relations has been clarified and the general nature of the path ahead is somewhat clearer than it was at the time of our original decision to unify. Customarily we have waited until war broke out to organize our military forces properly, and consequently added to our mobilization delays. Basically there are ground, naval and air missions to be performed, and since these are related and mutually supporting only at the highest strategic planning level, it is wise to keep them semi-autonomous under the policy guidance of a coordinating Department of Defense and the strategic

direction of the Commander in Chief's National Security Council. The difficulty which arises annually in budget hearings over the proper determination of our "balanced force" requirements arises from a confusion between the separable missions of our armed forces and the inseparable weapons which are used to carry them out.

We do not have a navy to operate everything that floats, an air force to do all the flying, or an army to perform everything on the ground. The missions of the three services have developed specific and very distinct strategies. These strategies, while having the common objective of forcing the enemy to accept our political will, are independent and, to be successful, require the exploitation of land, sea and air weapons in each service. The Navy has long recognized that aircraft are an essential ingredient of sea power; the recent incorporation of antiaircraft artillery into the Air Force's Air Defense Command is a recognition of the importance of land-based fire power in the Air Force mission of defending the skies. The growth of Army aviation springs from recognition that land warfare cannot be conducted without adequate aviation.

*Aviation is indispensable  
to dispersion and mobility*

The great increase in fire power, especially atomic weapons, has forced drastic changes in Army tactics and techniques. Armies of the future must be widely dispersed into small, self-contained units readily supported and moved for defensive and offensive operations. Divisions must be capable of sustained operations without land communications, and logistics must be rapid and flexible. The essential element of all these problems is speed: speed of movements of units, speed of arrival of supplies, speed of concentration of fire power, and speed of establishment of new or alternate lines of communication. The only answer is the continuing and instant availability of aviation: attack aviation for

Chase 123 (now built by Fairchild) is useful assault transport and can carry up to eight tons of cargo



Two-engined L-23 Beechcraft command-type aircraft can carry pilot, five passengers



U-2 Otter by DeHavilland, new utility type cargo carrier, fills gap in Army air needs





concentration of fire power, short-range transport aviation for rapid concentration and dispersion of units and supplies, and medium-range transports for maintaining continuing support from changing depots and to rapidly moving units. The absolute need for rapidity and flexibility of movement has made the Army reexamine the validity of present assumptions that much of its air strength should come from a centralized air organization.

ONE significant result of the dispersion introduced into modern ground warfare is the loss of rigid control. Divisions, and even smaller units, must act promptly on their own initiative without detailed advance planning. Under threat of an atomic attack they must disperse rapidly, while to exploit our own fire power they must concentrate to assault the enemy. When they are attacked they must react promptly and with full force to stop the enemy. These problems require that the independent commander be given direct control of the full resources of our fire power and mobility. Battlefield decisions cannot be carried out by cooperation and requests; when a commander issues an order he must know that it will be obeyed promptly and exactly. Our doctrine of aviation support for ground operations is as obsolete as the rolling barrage, and is suitable only for a stabilized Western Front of 1918 or a Korea of 1952.

*The Army's need for aviation can't wait*

The continued reliance of the Army on an inadequate aviation program of a few observation aircraft for artillery missions and a few transport helicopters for "combat zone" transportation of troops and supplies is dangerous because it is inadequate. Our ground troops assigned to NATO are already deployed in the face of the enemy's armies. Yet this most irreplaceable of our national resources will find itself without any firm as-

signment of reconnaissance, attack or transport aviation support until the Air Force has performed its other missions. The failure of the Air Force to recognize the absolute necessity of assigning aerial support directly to our ground armies is a natural consequence of the formation of a separate air arm. That arm's mission is victory in the air, and it would be as foolish to expect the Navy to send its fleet up the Rhine while the ocean was dominated by a hostile fleet as to expect the Air Force to assign its fighters to delivering napalm while its bombers and their bases were being attacked by enemy bombers. But our troops on the ground cannot wait for the gaining of air superiority or the accomplishment of any other aerial warfare mission before they receive the assistance they require. Since by virtue of our international commitments our ground forces cannot be held out of the theater of war until an excess of air power is generated, it is essential that our Army have an adequate source of aerial fire power to meet the enemy's ground attack the day the war begins.

In considering the availability of aviation support, especially the fire-power support of tactical aviation on the battlefield, another aspect of the current military situation needs more attention than has been given it. Under the concept of the unification of our military strength with that of our allies and the close integration of our armies, our division in battle may well find it impossible to obtain aerial support from the allied agency controlling air power. Our forces can only rely on those elements which are organic to them, and must submit their other requirements to an international pool. While it is expected that the United States ground forces will operate under an American commander, there is no assurance even of this. It would seem, therefore, if United States troops require close air support on the battlefield, or logistical aerial support from their bases, that such resources had best be a part of our field armies. Otherwise it may not be available in a time of crisis.

Versatile L-19 Cessna Birdog, used here to lay wire, can perform a wide variety of useful missions



Fast evacuation by air of wounded men is big job of Bell's H-13



The H-21 Piasecki helicopter used for tactical assaults and resupply, can carry 15 men or two tons



# The Case for Tactical Atomic Weapons

**The campaign against the use of atomic weapons tactically is wrong-headed and will destroy all efforts to create an atomic-age army if it gains public acceptance**

I MUST take strong issue with Hanson Baldwin's arguments in the section of his article in the January issue that fall under the subheading "The Limitations of Atomic Weapons." Such warnings as Baldwin's about "nuclear warfare's moral and psychological liabilities"; that the "use of such weapons against Asiatics would reap a whirlwind of hate"; and might "turn little wars into big ones" would, if permitted to gain public acceptance, tend to nullify the development of an atomic-age army.

Such statements as these (and Baldwin isn't alone in making them) stem from public misunderstanding and fear. When President Truman told the world the United States was "prepared to use atomic weapons in Korea," apprehension engulfed our nation, among others. Britain's Prime Minister flew posthaste to Washington to protest against turning a not-so-little war into a mammoth one. Ed Murrow of CBS recently recorded his belief that "use of nuclear weapons even if begun for so-called tactical purposes will bring on all-out strategic use."

Quite contrary has been the attitude—and actions—of the Department of the Army's military and civilian leadership. The atomic cannon, first of all truly "tactical" atomic weapons, came into operational status in spite of strenuous ridicule and opposition, wholly non-Army in origin. The Corporal missile and the Honest John rocket followed rapidly. Doubtless all three can be improved to better fill their tactical roles; and quite as surely such development is in progress behind classified veils. But what value are they if the current public temper against the use of atomic weapons prevails?

No sane person argues the ultra-priority of preventing all-out hydrogen-bomb warfare. That, by popular con-

cept, spells the deterrent effect of a powerful Strategic Air Command, alertly poised upon (almost) invulnerable bases. It might well, upon examination, also require continental air defenses so strong that SAC, returning successful from its retaliatory holocaust, would touch down in a living homeland.

Nor is all this enough. By definition, SAC's deterrence is retaliation *in kind*. Would this country bomb Soviet cities because Communist puppet armies invaded a remote land—as they did in Korea or Indochina? Yet failure to stop creeping aggression is to substitute death by slow poison for instant pulverization. Finally, judging by Korea and Indochina, does the United States possess the capability of stopping that form of aggression by proxy?

WE cannot match Communism's horde of expendable manpower everywhere on the globe. Our achievements in arming and training the South Koreans to undertake the brunt of their own defense cannot be widely emulated—at least for some years. The definite logistical edge in our favor (sea lanes *versus* land transport) in Southeast Asia dwindles farther north and is wiped out in the Near East.

Clearly this outline sketches an unmistakable requirement for tactical atomic weapons—in the American tradition of machinery and technology to save manpower. Haven't we always led the world in production per worker both in industry and agriculture? Weren't we the "arsenal of Democracy" a dozen years ago? Yet misunderstanding and fear seek to deny us our logical response to tomorrow's aggression.

The task of scotching half truths, dispelling confusions over tactical employment of atomic weapons is, like limited wars themselves, a job for *unified services*. Lesson I-A-A-A-A is joint task forces, highly mobile, atomically armed.

THE case for all struggles short of *Götterdämmerung* by thermonukes is clear. Combined land, sea and air

The author of this article insists on anonymity. We will say that if we used his name, the majority of our readers would immediately recognize him as one qualified to write in this field.

power are vital to victory. The advent of tactical atomic weapons places in a commander's hands the ability to influence the battle reminiscent of the Napoleonic age. It also confronts commanders with an urgency for swift, essential decisions unparalleled in history. Unity of land, sea and air contingents must match that of battalions in a regiment, ships of a fleet, squadrons of an air wing.

Fear that "any use of atomic weapons will lead to all-out nuclear warfare"; misunderstanding of atomic weapons' rightful functions in limited wars, and—probably most cogent—lack of comprehension of the causal distinctions between limited and total war; all these combine, in Democracy's all-potent opinion, to hamper military effectiveness.

The adjective "limited" in limited war applies principally to the *objectives* for which the conflict is waged and only in a minor way, if at all, to the area of the conflict or the weapons employed. If our objective is unequivocally announced as no more than the destruction of invading armies, will killing the "people's volunteers" with 280mm guns and Honest Johns provoke the Kremlin into attacking continental USA any more than General Ridgway's armored task forces in Operation Killer? The latter's lethal success quickly brought Red screams for an armistice. Atomic weapons might do the job faster.

**I**GNORANCE about the "tactical employment" of atomic weapons is colossal. Again note that Ed Murrow broadcast that atomic tests in Nevada were "postponed day after day because of unfavorable winds," to avoid "radiation dangers." The AEC's primer, *Effects of Atomic Weapons*, disposed of that in 1950. Air bursts (many Nevada tests were tower shots where the fire ball touched the ground) do *not* produce radioactive fallout. Troops can march, and have marched, unharmed to ground zero immediately following the air burst of an atomic weapon.

Air-burst lethal effects are over almost as quickly as those of HE explosions. Tactical employment of atomic weapons on the battlefield would emphasize air-burst employment (larger lethal radii, no lingering radiation to hamper exploitation). Air power might deliver them as well as Army weapons, except that Army weapons have greater accuracy, within relatively short ranges, and also have an all-weather capability.

Targets need *not* be cities or troops massed in parade-ground formation. Consult Korea's record for the weight of ammunition expended to kill one enemy soldier (the cost to U. S. taxpayers around \$200,000). Consider the (now) "small" 20-KT bomb, its lethal radius of approximately one mile for "men in the open." Such an explosion over a Communist division deployed in attack (four-mile front, three-mile depth, 10,000 men in twelve square miles) would result in over 2,000 casualties. If, for some inexplicable reason, you want to decide matters on a dollar basis, check the cost of delivering a "nominal atomic bomb" against 2,000 x \$200,000.

More sanely, compare the fire power necessary to match that 20-KT's results.

**A**IR-DELIVERED tactical A-bombs can also work wonders farther back. Enemy communications, roads and rail lines, can be cratered beyond repair (the AEC primer says craters 100 feet deep). Nor need these strikes be on cities. The more we study the issue the more we wonder if Korea's present desolation would have been as bad if atomic weapons, skillfully employed, had been used to halt the invaders. Would we have reaped a "whirlwind of hate" from Asians by winning a quicker, more favorable decision without destroying any more (if as many) Korean lives?

What about the risk of "turning little wars into big ones" by using tactical atomic weapons? Our discussion thus far suggests that this will depend on *why* and *how* we use them. In Korea we killed the invaders on the battlefield as best we could. Interdiction would have been more effective if aimed at remote sections of rail and highways. And the more remote, the harder to repair. This leaves unhurt the many cities actually levelled by conventional bombs. Operation Strangle with atomic bombs could have been a real choker, and would not have touched off Armageddon.

Lastly, there is the psychological aspect. When Communism embarks on a peripheral war it has always been a limited involvement for a limited gain. Successful as in Tibet and Indochina, it consolidates, prepares for another bite or nibble. Hurlled back, as in Greece or Korea, neither the Kremlin nor its hirelings dispatch bombers against Washington. When Communism desires all-out war—an unlikely prospect while the free world possesses real deterrent strength—it will scarcely begin it with a sideshow performance. Even if it should, tender forbearance on our part by fighting that initial blaze with our atomic right arm tied behind our back would never cause the Kremlin to forego its greater objective. If, contrariwise, the sideshow is just that, our meeting force with greater force (atomic or other) on battlefields of Red choosing will never "provoke" Communist leaders who are deeply indoctrinated in the sin of permitting themselves to react to a foe's "provocation."

**I** COULD go on endlessly discussing misinformed mistaken public pronouncements about the unmorality, danger, impracticability, *et al*, of using atomic weapons instead of making American fighting men kill overwhelming numbers of their foes with non-atomic weapons. But where is the "unmorality" of killing invaders embarked on unprovoked aggression? Is this not sympathy for a convicted murderer instead of for his victim?

The USA has been plunged into more than one war because our foes thought us unwilling, or unable, to fight. This applies to overcharged trepidation about the safety of our cities. It applies to understanding the facts of the tactical use of atomic weapons. It applies to limited conflicts, contests we must prevent, or win, if we are to continue as a world power.

# Want a Law Passed?

If it has to do with the Army you won't get far without the help of the Office of the Chief of Legislative Liaison. Here's what OCLL does and how it does it

## LIEUTENANT COLONEL HERBERT E. WOLFF

**Y**OU'RE quite a guy. A Leonardo da Vinci, Ben Franklin, Enrico Fermi, and Karl von Clausewitz, all wrapped up in the anonymity of Army o.d. Practically every scientific breakthrough, technical advance, tactical development, and new approach to leadership the Army has made in the past decade came right off the top of your head. But no one knows what a genius you are except a few generals and some of your fellow staff officers. Finally, one of your generals decides such excellence should be recognized. He proposes a special commendation medal—none of the existing ones being quite right for your special case—and writes a letter through channels. After it gets

through the Army staff and is approved all the way up, including the Department of Defense, it goes to the Army Office of the Chief of Legislative Liaison (OCLL) and is sent to Congress in the form of a bill.

It is referred to a subcommittee of the Armed Services Committee of the House of Representatives, and there it lingers unattended—the chairman of that subcommittee doesn't believe in special awards and is unacquainted with the splendors of your services. Liaison officers of OCLL go to work. They explain why you deserve this award. Finally the chairman agrees to order a hearing. The principal witness is the General who recommended

it. He is carefully briefed before the hearing by experts from OCLL who tell him the names, party affiliations, and home districts of the members of the subcommittee. They will give him suggestions on what to stress in his presentation and will describe the yawning pitfalls that he should avoid. The General is well prepared and does such a brilliant job—only you could have done better!—that the subcommittee approves the bill and pushes it through the full committee and gets the Rules Committee chairman to give it the green light. The Speaker of the House is for it, and so it goes to a vote and is approved. The process is repeated in the Senate—with liaison of-

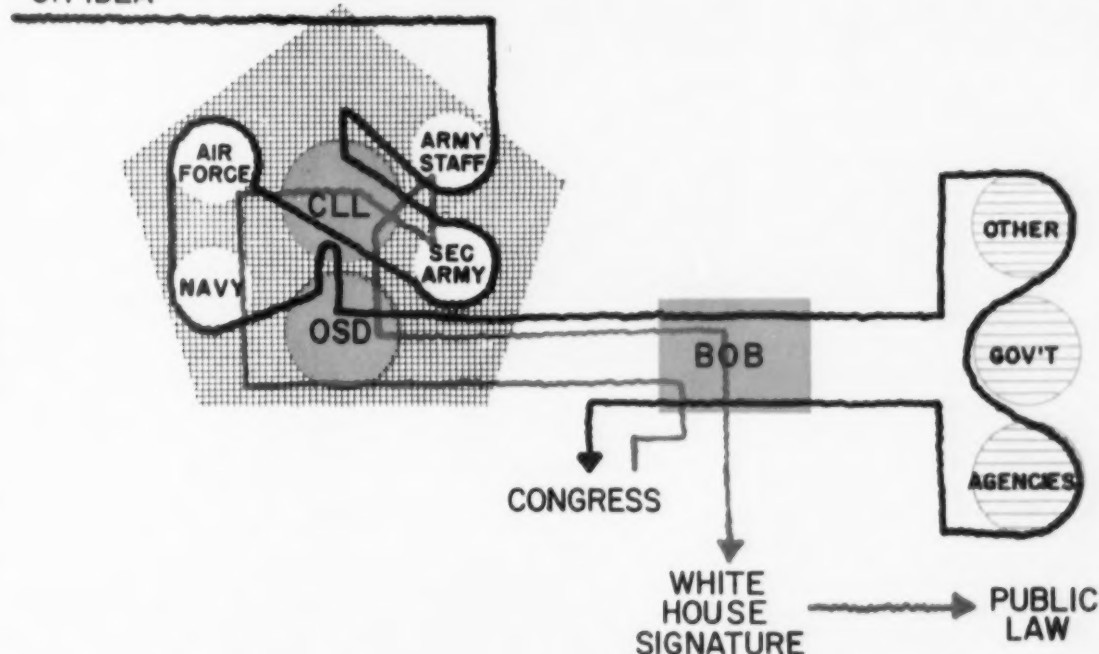


General Ridgway and General Twining with several members of the Senate Armed Services Committee. Present, but out of camera's eye, in keeping with anonymity that is their practice, are members of the OCLL staff



## The route (sometimes torturous) by which Army legislation is processed

REQUIREMENT  
OR IDEA



ficers there giving it their all—and one fine spring day you're called to the White House and the medal is pinned on you by the President of the United States.

You deeply appreciate the part your General had in this and you have a warm feeling for the Representatives and Senators who voted it, and you're humbly grateful to the President who signed the bill into law and presented the medal. But you aren't aware of what officers of OCLL did in your behalf, and you don't know that if it hadn't been for them your medal would still be just an idea on a piece of paper filed away among other dead bills on Capitol Hill. OCLL provided the spark that kept it alive and was the booster pump that gave it a push whenever one was needed.

And that is what the Office of the Chief of Legislative Liaison does for all Army legislation (except appropriations). As a part of the Office of the Secretary of the Army, OCLL provides information services to the Congress, processes legislative needs, conducts liaison, and cooperates in Congressional investigations of Army activities.

**I**t wasn't always thus. Before the war a year of 1918 there is no evidence of the existence within the War Department of a central agency responsible for legislation and for liaison with the Congress. Lines led to Congress from every bureau chief in the War Department, and the Secretary of War might not have direct official knowledge of what some of his subordinates were seeking from Congress. If you

have read about the Ainsworth incident in 1911 you know that the critical question was whether Major General Fred C. Ainsworth, who was The Adjutant General, had more influence in Congress than Major General Leonard Wood, who was Chief of Staff, or Henry L. Stimson, who was Secretary of War, or indirectly, President William Howard Taft. It turned out that he didn't have, although it was touch-and-go and the outcome was a political adjustment.

**G**OING back now to 1918, in that year the Chief of Staff assigned to the War Plans Division of the General Staff responsibility for War Department contacts with Congress. Since then the office has existed in one form or another.

To understand the role of OCLL and the legislative process you must keep in mind that there are two types of legislation affecting the Army. The first is enabling legislation. For example, an act authorizing the Army to increase its strength by 50,000 officers and men is enabling legislation—legal authority for the Army's operations and its very existence. The second

**Lieutenant Colonel Herbert E. Wolff**, Infantry, won a battlefield commission on Luzon in 1945, while serving with the Alamo Scouts. Integrated in the Regular Army in 1946, he served with CID in Europe until 1949 when he was posted to the 15th Infantry at Fort Benning. He was with the 15th when it went to Korea in 1950 as a part of the 3d Infantry Division. Later he served as infantry representative at The Signal School. He is now Chief of Plans and Projects Division, Office Chief of Legislative Liaison, Department of the Army.

type of legislation is appropriations. Until funds to clothe, house, feed and pay the additional 50,000 officers and men are appropriated, the enabling legislation can't be put into effect. Thus, appropriations are the Army's bread and butter. Each year a new appropriations act is passed to give the Army money for activities authorized by enabling legislation.

**C**ONGRESS has recognized the two general types of legislation by setting up two types of committees. Appropriations acts are handled by the Appropriations Committee of each house. Enabling acts are handled by the legislative committee of each house. The legislative committees of prime interest to the Army are the Armed Services Committees.

Army organization parallels Congressional organization. Thus, the Comptroller of the Army works directly with the Appropriations Committees while the Office of Legislative Liaison works with the Armed Services Committees and any other committee dealing with legislation affecting the Army. The Comptroller's dealings with the Appropriations Committees are limited to money matters. If the Appropriations Committee gets into any other business such as investigations, OCLL assumes responsibility.

**H**AVING considered the legislative process and its many complexities, some words should be devoted to the legislators. Congressmen are people who have reached this position through a means known as politics, which is a profession as much as law, medicine, or military service. There are good and there are bad politicians, just as there are good and bad doctors, lawyers, and soldiers. Senator Kefauver, in his book, *Twentieth Century Congress*, says: "Congress has its share of crackpots, cheap publicity seekers, shirkers and chiselers. So has almost any organization of like size. . . . Most members have had pretty much the same experience as the average American citizen. That is why there is about the same proportion of outstanding, average and lesser people in the Congress as there is in any individual community."

The job of a Representative or a Senator is a difficult one. On the average, a Representative represents about 400,000 persons. A Senator represents the entire population of his state. To-



BRIGADIER GENERAL C. J. HAUCK, JR.  
Chief of Legislative Liaison

gether they are the spokesmen of the people of our country, and a majority under our form of government determines national policy.

It is a physical impossibility for any man to know two or three hundred thousand people personally. Yet, if a candidate for public office is to be elected, he must be known to more than half of the people of his state or district. This explains the Congressman's dependence upon newspapers, radio, television, and other forms of advertising to keep his name before his constituents.

**T**HE average member of Congress is not a wealthy man. As a matter of fact, it may cost more to be elected to Congress than a member of the House earns while in office. Money for his campaign is donated by organizations and persons who have monumental faith that the candidate supported will represent their interests better. Some money is contributed by his party and some comes out of his own pocket.

This explains why many members of Congress arrive in Washington with obligations. Bound by party discipline, to have the national interest at heart, to represent the district, to look after the interests of constituents, probably broke—all these apply to many newly arriving members of the Congress. In these circumstances they are to be "statesmen."

The average Member of Congress is honest, hard-working, and patriotic. His job is tough and he labors under terrific handicaps. If he goes on a trip to learn facts he is accused of "junk-

ing" at the taxpayer's expense. If he votes as the people he represents want him to, but against his party, he is a traitor to the party. If he opposes certain interests, they call him a stooge, a fool, or a crook. If he tries to support national interests above the wishes of a majority of the people he represents, he may get fired at the next election.

**T**HE time when soldiers looked upon Congress as a miserly Santa Claus to petition once a year is past. Although the Constitution provides that the President shall be Commander in Chief of the Armed Forces, it reserves to the Congress means of providing him with a command. Six of the eighteen specific enumerated powers set out in Section 8 of Article I of the Constitution relate to the Armed Forces. Should Congress fail to act in the exercise of these powers, there is nothing the President, by virtue of his own authority, can do about it. The Army has learned to understand that in determination of military needs and the establishment of military policies, the Congress plays an essential role.

**I**T is apparent why Congress is well informed on matters connected with the Army. There are 262 veterans in the House of Representatives, of whom 161 have seen service in the Army. There are 60 veterans in the Senate, of whom 42 have seen Army service. The Congress therefore is not unqualified to appreciate meritorious accomplishment or to evaluate requirements of the Army. It has been said that the Army will be supported by the Members of Congress to the extent that problems, accomplishments and potentialities are made known. Representative Daniel J. Flood on 6 July 1955 quoted from an editorial to make this point: "The way young men jump into uniforms of the more glamorous services in order to avoid being drafted into the Army is a national scandal, and a reflection upon the way patriotism is cultivated in this country. The tragedy of the Army is that it has never learned the simple fact that it has to fight for itself in order to better fight for America."

We are learning to fight for the Army because we are imbued with a realization of our importance. The disciplined pride of a military man asks only respect and consideration. We give both to the Congress, and look for recognition in return.



# BIG MAP JOB

Where the big map project straddles the Equator in Ecuador a survey party running levels ties into a bench mark at a monument located on Latitude 0°.



**Seventeen countries are being surveyed by the Inter-American Geodetic Survey under the direction of a Colonel of the Army's Corps of Engineers**

**ANTHONY LEVIERO**

**T**HE U. S. Army's ubiquitous Corps of Engineers can descend to the depths and ascend to the highest peaks—if the job requires it. For example: mapping Central and South America. This tremendous project has required survey parties to descend 150 feet below sea level to run level lines in the Dominican Republic, and to ascend three miles above sea level to place a triangulation station on top of a peak in the Peruvian Andes.

The Corps of Engineers has a habit of taking on gargantuan jobs, and its Inter-American Geodetic Survey is one of them. And in the process it is making a rare contribution to the Good Neighbor Policy, is helping Central and South American countries develop their natural resources and public works, and is filling a gap in the strategic map requirements for the defense of the Western Hemisphere.

Headquarters of the IAGS are at Fort Clayton, Canal Zone. It has only about 650 men, but its field organization is scattered over 12 million square miles, and embraces a span of 6,000 miles from its most northerly to its southerly point of operation. It also employs about 5,000 indigenous people of the seventeen countries.

The project grew out of a realization in World War II that much of the world was inaccurately mapped, a serious deficiency if the free world were again faced with global war.

So in 1945 President Truman gave orders for a cooperative mapping program on a global scale with friendly countries willing to participate. The areas of Mexico, Central and South America were assigned to the Caribbean Command by the Joint Chiefs of Staff, and the Inter-American Geodetic Survey was formed.



**COL. ROBERT R. ROBERTSON**  
Director, Inter-American  
Geodetic Survey



Since then the organization has completed fifty per cent of the enormous task of establishing ground controls in the various countries and twenty-five per cent of the actual mapping. The area being mapped is three times that of the United States.

Remarkably the program has not been marked by any friction or suspicion of motives. On the contrary, it has engendered a great deal of goodwill and has stacked up some impressive accomplishments.

And as Colonel Robert R. Robertson, Director of the IAGS, has said, this is not a "giveaway program." Uncle Sam contributes about \$2.5 million a year, while the participating countries pay approximately \$10 million. Meanwhile, these countries are gaining the know-how to do their own mapping in the future.

The only Latin American countries that did not join in the program were Argentina and Paraguay. Uruguay did not have to, because it has been mapped satisfactorily. The project is based on diplomatic agreements worked out by the Department of State.

IAGS consists of 26 officers, 16 warrant officers, 42 enlisted men, and 280 civilian technicians. Of these, 18 officers, 16 warrant officers, 20 enlisted men, and 125 civilians are assigned to field projects and the remainder to the headquarters staff and to a cartographic school in which selected Latin American students are trained in all phases

Machete-wielding workmen hack a trail for survey parties through dense jungle undergrowth.



A lightkeeper spots a light used in establishing map control points from a clearing on high ground.







At IAGS headquarters in the Canal Zone a large staff of engineers, computers, draftsmen and technicians work from data sent in by field parties working from the Rio Grande almost to Cape Horn.



of mapmaking, from basic field work through reproduction of finished map sheets. The United States Coast and Geodetic Survey maintains three of its officers at IAGS headquarters as consultants to the director.

The project would be impossible without airlift, and this is supplied by the 937th Engineer Company (Aviation), an outfit with 56 officers, 1 warrant officer, and 101 enlisted men. IAGS is equipped with about 50 aircraft (half of them helicopters), as well as 10 landing craft, 1 FS ship, 32 utility boats of various kinds, and 400 radios of all types to maintain its extensive communications net.

IAGS is backstopped by the 551st Engineer Company (Survey Base) consisting of 3 officers, 1 warrant officer, and 131 enlisted men, stationed in the Republic of Panama and the Canal Zone.

Maps are basic to the development of an area's resources. In Cuba, for instance, an extensive watertable survey by IAGS made it possible to develop 500 wells.

Several million dollars were saved in Guatemala and Costa Rica because the availability of topographic information simplified the layout of highways. In almost impregnable Peruvian jungles engineers mapped pools of oil on the surface of the ground—oil that will

be eagerly sought some day. In the Artibonite Valley of Haiti the mapping made possible a large irrigation system.

"As soon as surveys are completed and maps produced," said Colonel Robertson, "highways, railroads, hydroelectric plants, irrigation projects, reclamation programs inevitably follow. Maps are basic."

**M**EANWHILE, the Engineers are assembling important collateral information about the size, shape and geophysical characteristics of the earth.

One discovery was that the sea level in the Pacific is 19 centimeters [approximately 76 inches] higher than the level of the Gulf of Mexico and the Caribbean Sea. This was established through checks of field elevations of first-order level lines across Mexico at Tehuantepec, across Panama at the Canal and across northern Colombia.

Interesting tidal observations have been made too. On the Atlantic side, the extreme range of variation is less than 2 feet, while on the Pacific side the variation is from more than 23 feet at the Panama Canal to less than 6 feet in the Gulf of Tehuantepec.

**W**HEN the map needs of Latin America were studied in 1944 by the Pan American Institute of Geography and



History, an agency of the Organization of American States, it was estimated that less than ten per cent of Latin America had been covered by large-scale maps, and many of these were inaccurate.

IAGS has already begun to uncover some of the inaccuracies. Within sixty miles of the Panama Canal is a mountain range 125 miles long and more than 5,000 feet high that is not shown on any existing maps. Small wonder, for the best available maps of some stretches of the Panama coastline were based on British Admiralty charts of 1854 vintage.

Elsewhere, some major mountain peaks have been found as much as forty miles out of true position on existing maps. And some of these peaks have as much as 5,000 feet in error in elevation. Some sections of the Amazon River have been found ten miles out of line with sections on adjacent map sheets.

**Anthony Leviero, a veteran newspaperman, covers the Pentagon for *The New York Times*. His first military service was in the 106th Infantry, New York National Guard, in which he enlisted in 1923. He transferred to the ORC in 1935 and in 1941 went on active duty in G2, WDGS. During the war he compiled information on enemy forces that was published in several handbooks and in *Tactical and Technical Trends*. His first appearance in this magazine was in June 1955 when he wrote of the experiences of armor in the atomic bomb tests in Nevada.**



Members of a survey party break open boxes of rations

The data being assembled so laboriously are being translated into beautiful colored maps like the standard ones of the U. S. Army in scales of 1:50,000 and 1:250,000. Only the countries concerned issue the maps.

"Translating objectives into hard facts," said Colonel Robertson, "means the establishment through jungles, and over 17,000-foot mountain ranges, of more than 90,000 miles of primary arcs of triangulation and 195,000 miles of primary level lines. It means measuring 250 baselines, establishing 350 astronomic stations, installing and observing 200 tidal gauges and determining magnetic declinations and gravimetric variations at three thousand geophysical stations.

"This is a considerable chore which at the present time is about fifty per cent complete. But this is just the preliminary phase. Concurrently with working toward completing this basic work we are entering the next phase—obtaining photography, establishing mapping control, compiling, drafting and reproduction. With an area of over three times that of the United States, this phase too is a project of considerable magnitude."

After eight years of work, IACS has completed 45,000 miles of triangulation, 55,000 miles of levels, 150 base-

A leveling party in Colombia canoes across a river





Where accessible roads exist motor vehicles are used, but in some localities horseflesh is the best substitute for the horsepower of motor vehicles.

lines, and 250 astronomic stations. By now, too, every participating country is able to perform all phases of map-making—a result viewed as well-nigh impossible a few years ago.

**T**HE primary triangulation includes a series of arcs stretching from the United States down along the west coast to the vicinity of Puerto Aysen in Chile, at about 45 degrees south latitude, a span of 6,500 miles. When this is combined with the triangulation of the United States, Canada and Alaska, it means more than 11,000 miles of arc sloping up from near Cape Horn to Point Barrow, at the top of Alaska.

The gamut of the enterprise may be stated this way: the Engineers have laid level lines at 150 feet below sea level in the Dominican Republic and thrust their highest triangulation station on a 17,500-foot peak in the Andes of Peru. Also, in Peru the Engineers several months ago completed a first-order arc of triangulation in which 21 stations averaged 14,600 feet in elevation.

Obviously, this is not child's play from any viewpoint. For the teams in the field the struggle for survival is



continuous. Most of them are wholly dependent on helicopters or other light aircraft for food and supplies. The result is that there is constant strain on the aircraft and the pilots, and more than the usual opportunity for aircraft accidents.

**I**N remote jungle spots where the hills are not high enough for triangula-

tion, H-19 helicopters are used to bring in survey towers and survey parties. L-19s are used for first reconnaissance and preliminary photography to locate station sites for the survey parties.

The L-19 has proved satisfactory for the task except at high altitudes. The airport at La Paz, Bolivia, is at 13,400 feet and low-level reconnaissance has to be done at approximately 15,000

feet. The plane has been equipped with oxygen for the pilot and the observer, but it lacks the power for safe and comfortable operation at this altitude. There is a need for a plane with at least a single-stage supercharged engine that could be used along the west coast of South America.

The L-20 Beaver is used for logistical support of the helicopters and field parties. They pick up supplies, usually at a capital city, and fly into a bare landing strip hacked out of the jungle with machetes. At the landing strips, H-13 and H-19 "choppers" take over, hauling the supplies to the actual sites of the field parties.

**I**N Guatemala the Indian laborers working for the field parties have no use for money in the jungle. They insist on corn for wages. So every payday an L-20 flies in with 1,200 pounds of corn in the "pay envelopes."

With the H-13H helicopter going into production, the 937th Engineer Aviation Company would like to get some for its rigorous work. As the outfit sizes up its needs, the requirement is for a copter that can operate at 8,000 to 10,000 feet with a payload of at least 500 pounds.

This is the story of the Engineer ambassadors in the jungle. If you compound two of their objectives—"To secure a strong geodetic tie between North and South America" and "To create good will"—you get hemispheric solidarity.



A network of radio communications keeps distant survey parties in touch with local headquarters of the IAGS.

Triangulation stations on otherwise inaccessible heights are manned by lowering work crews from helicopters.

A working party erects an observation tent on a Colombian mountain





# Lights! Action! FIRE!

## Movies Improve Military Police MARKSMANSHIP

**BRIGADIER GENERAL  
JEREMIAH P. HOLLAND**



As projectionist "runs a situation," alert MP fires on fleeing gunman

**I**N an Army dependent housing area on a dark night a shadowy figure gingerly lowers himself from a window sill onto the ground. As he steals across the lawn toward the street he is suddenly illuminated by a flashlight beam. A voice calls to him to halt. He spins around, yells, "I give up!" then whips out a pistol and blazes away. The gunman darts across the yard, leaps a hedge, and zigzags across the street toward a parked car. A military policeman levels his pistol at the fleeing figure and fires. At the crack of the shot the fugitive stops in his tracks. The encounter is over.

We haven't seen the real thing, but the next thing to it. We're witnessing a firing exercise on the recently developed indoor movie pistol range.

This cinema range, produced in Europe for use by our MPs, improves the marksmanship of pistol firers by simulating "tight spots." This range also tests a soldier's ability to judge when *not* to fire, for he is penalized for shooting in crowded streets, or at friendly persons or vehicles.

A firing exercise runs like this:

The soldier takes position with a target pistol (a .22 mounted on standard Army caliber .45 frame). On order, the projectionist starts the moving picture, with or without sound, of a fleeing gunman, an attacking thug, a get-away car, or the like. The firer picks his target, and at what he deems the proper moment blasts away. The bullet

punctures the screen, and the image at which he fired freezes in place.

A ray of light from the target box passing through the hole in the screen shows whether he scored a hit or missed. The projectionist, by a remote-control switch, causes a roll of paper behind the screen to move up and seal the bullet hole. Movie and firing are then resumed.

When sound is used, the firer hears the crack of returned fire, yells of "Don't shoot!" and other distracting noises such as might be heard in an actual encounter.

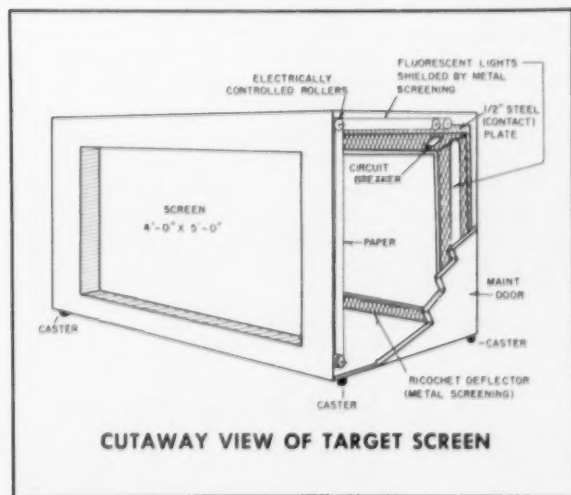
Cinema firing has been incorporated in unit training schedules. Ranges are also available for off-duty practice under supervision. Present plans for improvement and expansion of the range call for firing rifles at "live" targets. By enlarging the screen, training officers hope for greater firing distances than the present maximum of 75 feet.

Soldiers who have practiced on this range say that besides improving their marksmanship and firing judgment, they get the feel of an actual experience in which they would be forced to use their weapons. Seven such ranges are now used by Military Police units in Europe.

Principal pieces of equipment needed in the portable indoor range are a 16mm projector and a 4-by-5-foot target screen mounted on casters. The complete range apparatus weighs about 600 pounds.

Most complex of the easily maintained range equipment is the target screen, a rectangular box illuminated by fluorescent tubes protected by shields of metal screening. The screen itself consists of two rolls of heavy paper, so that the bullet hole can be rolled away after each round is fired. To prevent ricochets, the bullet passes through a fiberboard mat after it penetrates the screen. Finally it strikes a half-inch steel backplate which acts as an electrical circuit breaker that stops the film.

The paper roll and resume-action switches are handled by the projectionist from a master control box.



**CUTAWAY VIEW OF TARGET SCREEN**

**Brigadier General Jeremiah P. Holland** is now on his second tour as Commanding General of the Provost Marshal General Center at Camp Gordon, Ga. Commissioned in the Field Artillery upon graduation from the USMA in 1927, he has served as Deputy TPMG and as PMG of USAREUR. He also served on AUSA's Executive Council.

# Air Defense by SAGE

The electronic brain of this new system for detecting and identifying aircraft can instantly coordinate all ground and air defense weapons

## BRIG. GEN. CHARLES S. HARRIS

**A**FTER five years of secret work, the Lincoln Laboratory, operated by Massachusetts Institute of Technology at Lexington, Massachusetts, unveiled its almost miraculous SAGE (Semi-Automatic Ground Environment) system for the detection and identification of aircraft and to control air-defense weapons. While no genuinely secret devices or procedures were shown press representatives, the broad methods of approach were outlined and illustrated to portray the nature and capabilities of the system which is still under test and development.

The heart of the system is the great digital computer, termed the AN/FSQ-7, which would fill a room large enough for a basketball court in the operations center of a sub-sector area of the Continental Air Defense Command. The computer receives information electronically from a far-flung radar ring on land, at sea, and in the air. It receives and stores this information, calculates it instantly and displays pertinent answers in a graphic picture. The computer shows the geographical location, height and movement of the planes within radar range, and it calculates automatically the capabilities of our own defensive weapons, indicating the most effective employment of interceptor planes, antiaircraft guns, and Nike or other missiles.

The computer cannot order our fighters to intercept an enemy flight until it has instructions, but it can indicate instantaneously which flight is in the best position to do so, and it can guide the flight leader unerringly to the interception. It cannot order Nike missiles into action, but it can put the Nike radar on the enemy, and indicate to the controller when the go sign should be given to Nike. It cannot divine for Civil Defense until too late whether the strike is aimed at New York or Philadelphia, but it can provide warning and information as to location and movement of enemy planes.

SAGE will replace the present largely manual early-warning and air-defense control system. This system, initiated before World War II on a basis of visual observation and vastly improved by the introduction of radar, was applied effectively first during the Battle of Britain. With the pattern thus set, the Army Air Forces and the Navy continued to refine and perfect the system. It utilized the same general type of radar detecting and tracking devices as does SAGE. However, the data were transmitted by telephone or radio and plotted manually on display boards in the operations center. SAGE utilizes the sound features developed in that experience, and goes farther to perfect the speed and accuracy of electronic data transmission as well as convenient and instantaneous display. Through the uncanny digital computer, the interceptor officer can also ascertain instantly how many minutes this or that friendly flight will require to intercept a given hostile flight, whether the flight is in the air or on alert at its base. And he is also advised when the hostile planes will reach an area defended by the Army's Nike missile and antiaircraft guns.

SAGE also introduces the capability of navigating electronically our all-weather interceptors or long-range missiles to intercept the enemy raiders, allowing the pilot, if there be one, to reserve his strength to take over and pull the trigger after the enemy comes clearly into his own radar scope. This is expected to give much greater effectiveness for defensive operations at night or in cloudy weather. No announcement was made as to the demonstrated capability of guiding the Bomarc guided missile in interception. However, it is known that that supersonic missile has a range of over two hundred miles, and it is a fair assumption that steps are in progress to give it a guidance system comparable to that of the Army's Nike. The Nike

has its own dual radar system to track both the target and the missile, and its own computer to effect the desired collision.

**W**HILE the system appears to have established a new high in automation, man is still required for imagination, decision, and direction. Hence, the term Semi-Automatic Ground Environment signifies perhaps that the main elements involved, as well as the nerve center, are based on and controlled from the ground. At any rate, the four words used provide a basis for the code name, SAGE. And we may well add here that man will also be required for the maintenance of complex equipment of this order. The designers have been mindful of this problem and have incorporated light signals to aid the trouble-shooter in locating the seat of possible disorders. The equipment has been designed also for long life. For example, the vacuum tubes have an expected life of 100 thousand hours. In addition, the computer is installed in duplicate. While one is in operation receiving, calculating and putting out data, the other is also receiving data, muttering to itself, and operating just enough to go into action instantly.

Some elements of the computer are designed to give the broad picture for the defense commander; others, for the officer directing the interceptors, or the guided missiles, or the antiaircraft guns. When the air battle moves out of the area of one computer, information pertaining to each aircraft is transferred electronically to the computer of the adjacent area.

**L**INCOLN Laboratory's contract for SAGE is administered by the Air Research and Development Command through Cambridge Research Center. Outside of Lexington, in the haunts of Paul Revere, our original apostle of early warning and "Minute Man" alert,



The unusual superstructure on this Navy super-Connie houses an early warning system



These are the consoles of the Whirlwind I computer, a prototype of the SAGE system

some 700 devoted and top-drawer scientists, assisted by some 1,200 technological and administrative personnel, are engaged in SAGE and kindred projects. The Army and the Navy are active participants, with top-level representatives on the Advisory Committee, as well as with units in action.

The prototype computer installed at Lincoln Laboratory was manufactured by the International Business Machines Corporation as a further development of the Whirlwind I computer, which was developed by MIT and Lincoln Laboratory for the Navy. The Western Electric Company, Bell Telephone Laboratories, and a few other scientific firms are also actively participating.

**T**HE SAGE system, still under test, has progressed and additional computers are in production by IBM. When the computers are available, it is reported that operations centers applying the SAGE system will be installed at Syracuse and Stewart Air Force Base, N. Y., Thompson Air Force Base, Maine, Fort Dix, N. J., Fort Lee, Va., and Fort Custer, Mich. (Civil Defense Center). When so installed, the Army anti-aircraft units in the First, Second and Fifth Army areas will become active participants in the SAGE system.

Eventually, it is contemplated that SAGE operations centers will be established in thirty-two sub-sectors within the United States. These systems, of course, are not available in the bargain basement. The estimated installation

expense for the entire system exceeds a billion dollars. The required extensive communications net of telephone cables and UHF radio is estimated to involve an expense of a quarter billion dollars a year.

The question will continually arise as to whether the SAGE system may be more elaborate and more expensive than justified; whether some of the national effort here might be saved and diverted toward offensive strength. Naturally, in developing such an intricate system, the designers cannot always foresee exactly how much elaboration is required, and it is natural and well that the scientists will err on the side of too much rather than too little. As experience is gained, short cuts and simplification can usually be effected. Such economy is particularly applicable to any defensive element. Wars are won by offensive action and the initiative to call the tune. American military policy is based on that premise, once the war is thrust upon us. We need an adequate defense, but not by any means a perfect defense; the problem, however, lies in drawing the line of distinction. In this case the responsible authorities determined that SAGE is the right solution. Should war come and air atomic attacks be directed against our country, SAGE might, indeed, save the United States as radar saved Britain in the last war.

In our anti-aircraft experience in World War II we had rather elaborate and adequate air-defense opera-



Future air defense operations centers will look something like this concrete block structure at Lincoln Laboratory

tions centers with extensive communications nets in a number of our cities like New York, Boston, San Francisco and Seattle. Out where the air battle raged, in Africa, Sicily, Anzio, Guadalcanal, Leyte, the operations centers were a matter of tents, mud, weather, limited radar, communications, and equipment. The situation was saved by resourceful and determined men from all the services, who improvised with limited means to set up a workable system. Indeed, by the time of the Okinawa campaign, the Navy provided a highly mobile, compact and effective air-defense system. Even so, the Japanese managed to jam the main radio circuit on occasion. Decentralization to picket ships at sea and to anti-aircraft ashore was the order of the day.

So, we hope that progress is also being made to perfect a more mobile SAGE system for offensive warfare.

# DON'T TREAD ON TRADITION

Major N. C. Baird

*When you adopt another service's dress because it is snappy and pleasing to the eye, you may unwittingly be treading on other men's deeply cherished traditions*

I VENTURE to write this article after spending five months in America at the Armed Forces Staff College at Norfolk. This was, for me, a most enjoyable and enlightening experience, and it was a great privilege to learn a little of the high traditions and standards of the armed forces of the United States. I was also very proud to discover the considerable interest and knowledge evinced by American officers in the British forces. As I am an infantry soldier, I naturally discussed problems of mutual interest with American infantry officers, and it appeared that many considered our regimental system very favorably. Indeed, some went so far as to wish to have a similar system.

While I was at the Staff College I made contact with a pipe band in California called the Cameron Highlanders Pipe Band. As my regiment is the Queen's Own Cameron Highlanders, I was most interested to learn the story of this pipe band which bore our name. Just before I left America I received an answer to my inquiries. My informant, who had taken considerable trouble in providing me with the information I had asked for, made the following—to me—illuminating comments:

"Due to the mingling of British Commonwealth and American troops in the last war, Scottish piping has become more popular in this country. The U. S. Army now has about three pipe bands and the Air Force has pipers attached to one of its brass bands. . . .

"As you can see, the Sixth Army Band are wearing kilts and plaids of Royal Stuart. The fact is none too pleasing to Scottish-Americans who understand that military bands wear the Royal tartan only by permission of the

Sovereign. Indeed, it doesn't seem right that this comparatively new band should assume a mark of distinction which the pipers of more famous regiments (such as yours) have had to wait years to obtain. I have tried, in vain, to argue this point with the pipe major. Regardless of this, we are all quite pleased with the official recognition this band has received."

THESE and other experiences lead me to believe that there is a desire in America today, both in the services and in civilian life, to incorporate the

best from the past into the present and to honor events and connections, of which America is proud, with present-day activities and institutions. If this impression is correct then I am sure you, Americans, will find those concerned in the Old World will welcome your interest and be flattered by it. But may I please venture a word of warning? Please do not confuse tradition and uniforms based on tradition, which guide man's ideals, with dress, which merely guides his pleasures. Please remember, too, that Scottish toes are easily trodden on!

The U. S. Sixth Army Pipe band in the kilts and plaids of Royal Stuart. The reverence Scottish clans have for their tartans is similar to our feeling for Old Glory.





It might be easier to understand the reactions you may unwittingly meet in Scotland if I give an example. Old Glory is one of the most attractive national flags that I know. To you, however, it is more than an attractive flag, for it represents everything that is honorable in America—achievement and sacrifice; service by the individual and the might of a great nation; security for the weak and destruction of the oppressor. That is the tradition of Old Glory. What would you think if a foreigner adopted it for a private purpose? Perhaps a shipping company might use it as a house flag because it admired the history of the U. S. Navy. However this action might indicate an admiration of the attractiveness of the flag, it would trample on the great tradition behind it and even produce a resentment in the minds of those of you who cherish tradition.

From this example you will, I am sure, appreciate that however much I admire the enthusiasm of your pipe bands and understand the spirit which decided one to adopt the name, uniform and tartan of my regiment (apparently admiring our history and finding our uniform smart), I cannot help but wish this band had been aware of the real meaning of its actions as we, in Scotland, see it.

**A** HIGHLANDER looks upon his tartan much as an American regards his flag. This is particularly true of my regiment, whose tartan was designed by our founder and is not a Highland clan tartan. In the British Army the uniform of a regiment is its personal concern; therein can be found something of its achievements in war and marks of Royal favor. The color of its facings, the tartan, the design of a badge, all have their story. Our uniform is important to us because of the traditions behind it, and these traditions, I may say, mean much to a proud people.

If, therefore, any of you wish to carry on and strengthen your connections with Scotland, and if your services have units which wish to adopt the pipes, there exist many organizations in Scotland which I am sure will do everything they can to encourage you and help you to discover and establish legitimate links. We all know that our uniforms have often been copied, and indeed many British regiments have in the past adapted parts of foreign uniforms for their own use.



The pipes and drums of the Queen's Own Cameron Highlanders. During its 150 years' service this regiment has earned more than thirty battle honors on its colors.

**Major N. C. Baird**, 1st Battalion, The Queen's Own Cameron Highlanders, is a graduate of Stowe and Sandhurst. He entered the British Army in 1937. As a lieutenant colonel during World War II he served in Burma as a regimental S3, and later as G1 and G4 of the 5th Indian Division in Singapore and Java. In 1955 he attended the Armed Forces Staff College at Norfolk. He is now with his battalion in Korea.

In Scotland and in the Commonwealth, civilian pipe bands, too, have copied the military style of uniform. The bagpipes, it is said, came to Scotland from Ireland, and we in turn have handed them on to Pakistani and Indian regiments. These exchanges are surely good, for they form bonds between peoples, but this is only true if tradition is not thereby ignored. The kilt is truly national and has not been copied from another nation. It continues the heritage of the Scottish clans. Because of this, and because of their own traditions, Pakistani and Indian regimental pipe bands wear their own distinctive dress to which they have added a plaid, either of the tartan of their founder, or specially designed. In such a way history is made and incidentally new traditions formed!

I have sent the editors of this magazine a list of authorities in Scotland who will advise and help anyone who wishes to build on and continue the Scottish heritage and tradition. American units having pipe bands and wishing to establish links direct with the Scottish regiments, may write to the Association of the U. S. Army for the information I have furnished it.

**I** WOULD advise anyone wishing to establish a link to provide a reason for his request. In the case of the armed forces this might, perhaps, be a battle in which the American unit fought alongside a Scottish regiment or a link already existing with a Canadian Scottish regiment. In the case of individual civilians the connection should rather be a blood relationship, and descent from a Scot should be established. Civilian pipe bands might alternatively have some link with a town in Scotland or associate themselves with their local clan association. I have therefore included in the detailed information to the editors the address of the Scots Ancestry Research Society, but the ultimate authority on heritage in Scotland is the Lord Lyon King of Arms.

I think I can promise you that so far as Scotland is concerned, the regiments, societies and organizations will always be prepared to help, as far as it is in their power to do so. I myself am no authority, and can only outline the issue. But I am a genuine admirer of America, and as I would like to see the bonds between our countries strengthened still further, I offer these suggestions.

## THE CAUDAL APPENDAGE OF THE DOMESTICATED

**HORACE W. RUNDELL**

Did the messages clerk find footprints in the guns position?

**I**N the first part of this discussion of military writing I examined some of the common faults by emphasizing the stilted phrasing that so often appears in it and offered some hints about how to get around a few of the most prevalent of them. We shall now look at the problem of plurals, beginning with an examination of that troublesome phenomenon: the military *s*. This is the *s* that must be added to some nouns when they are used as adjectives. For example, you almost always have to add an *s* to *operation* when you use it as an adjective: an *operations officer*; similarly, an *athletics officer*.

Using plural adjectives with singular nouns is by no means an eccentricity of the military alone. Universal English usage shows hundreds of examples. The difficulty for the writer lies in the fact that usage is based on whimsey, not logic. This makes it impossible to establish a rule to follow. For example, we accept "a *sales tax*" without thinking, but we would boggle at "an *incomes tax*"; we speak of "a *spare-parts box*," never of "a *first aids kit*."

This business of using plural adjectives with singular nouns probably stems from the fact that some English

language nouns have only a plural form. These nouns cannot change their form when used as adjectives: *clothes*, *trousers*, and *goods* (meaning textile materials). Thus we have *clothes closet*, *trousers button*, and *dry-goods store*.

From this you can't do anything else beginning, we have kept adding new plural adjectives, always without logic, always inconsistently, until they are about to get out of hand. One recent headline in a newspaper stated **PARKS WORKER SLAIN**. In the same edition, another headline read **STREET CLEANER FINDS FORTUNE**. To be consistent, the second headline should have been **STREETS CLEANER FINDS FORTUNE**. The plural adjectives in the following headline make it nearly incomprehensible: **PRICES CONTROLS WAR**.

In discussing the phenomenon of plural adjectives in English, Jespersen mentions the fact that in certain sections of Alabama the natives speak of having a "teethache." Before you attribute this to illiteracy, I should like to add that the authors of the Ellery Queen books, who are far from being illiterate, wrote in one of their novels about "teethmarks" on the barrel of a fountain pen. In the same para-

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As we noted last month, **Horace W. Rundell**, a student of English, French and Spanish, has worked professionally as a translator, and has been a member of the Training Literature Section of The Infantry School since 1950.

# RUMINANT



graph, however, they compared the "teethmarks" to "footprints," not "feetprints," in the snow.

**S**OLDIERS are just as arbitrary as anyone else about nouns that must be plural when used as adjectives, and just as inconsistent in using them. Many crusading grammarians have shattered their lances against these plurals. They would have had more success with a crusade to have the zipper on uniform trousers changed from front to back. We must simply accept these plural adjectives as military custom and do the best we can with them. Without a rule to go by, this can be tricky. There are many nouns in military language that must be pluralized when used as adjectives, but the four that will give you the most trouble are *train*, *operation*, *communication*, and *weapon*. For example, with *field train*, *combat train*, *regimental train*, and so

on, an *s* is added to *train* to make it an adjective; that is, *combat-trains area*, *regimental-trains area*. But when these trains go into bivouac, drop the *s*; *field-train bivouac area*. The list in the box at the bottom of this page gives some dos and don'ts in using these adjectives. For the benefit of young men just entering the service who may let logic lead them astray, it also includes parallel expressions that are *never* used.

Writers of training literature sometimes try to add to the accepted list of plural adjectives with such statements as "a battlefield *recoveries* team" and "a battalion *trucks* park." If you have the same tendency, nip it in the bud. If these plurals are not stopped somewhere, we will soon be referring to "a piece of *apples* pie" and our fiancée's "luscious *reds* lips"!

**O**CCASIONALLY, military writers even use these plurals as singular

nouns. The following sentence from a training circular on flame warfare shows how this, coupled with a fistful of unusually grand words, can strip a reader's mental gears:

*A consideration of the tactical employment of any weapons must be tempered by an understanding of the degree to which its capabilities are offset by its inherent disadvantages.*

This is probably the most refined garble you have ever read. It is worthy of a top-flight diplomat who must frequently speak without saying anything that can pin him down later. The training circular, however, is training literature, and the writer should reveal his meaning. You can bring *weapons* and the two *its* into agreement in two ways. Since *weapons* is used as a noun, you can knock off the *s* without risking a court-martial. Or, if you are timid about trifling with the military *s*, you can leave it and change both *its* to *their*.

This makes the sentence grammatically correct, but does not bring it down to our level of comprehension. You have to work on it as a cryptographer works on a message in a foreign code. Two editors did so and checked their final interpretation with the author. He admitted that this was what he meant to say:

*Before using flame weapons you must decide whether they will be more dangerous to your own men than to the enemy.*

Did you get it on your first reading?

## EXAMPLES OF THE PERPLEXING MILITARY PLURAL

Always	but	Never
a weapons carrier	a guns carriage	
a weapons position	a guns position	
a weapons system	a ciphers system, or a wires system	
a communications center (zone)	a messages center	
a communications chief (officer)	a messages clerk	
communications training (equipment)	communications personnel	
a trains area	a trains station, or a buses station	
an operations officer (section), (board), (schedule)	an operations map (overlay), (order), (plan)	



*A successful leader knows how to get other men to take pride in performing difficult or unattractive tasks. Enthusiasm, sparked by leadership that saw to it that the men knew why a fast job was important, led these First Army Engineers to throw this bridge over the Vire River fast. The time is August 1944, the place France*

## TRADE SECRETS OF LEADERSHIP

**MAJOR GENERAL LOUIS W. PRENTISS**



*"Neither stars nor bars make an officer"—those who would lead American soldiers must apply selfless devotion to the task of learning to be leaders. Here are some practical hints . . .*

**T**HE Army schools that produce today's junior leaders and the training courses given these young leaders after they are commissioned all stress the importance of leadership and teach the basic principles followed by successful leaders. These young men come to us quite conscious, and perhaps a little awed, by the stern, but rewarding, demands that are imposed on those who accept the responsibility of leading American soldiers.

What they lack is practical experience. Only time can take care of that. Among the things we learn from experience is what might be called "trade secrets of leadership." These are common-sense methods that we older officers have discovered through trial and error.

Probably no two leaders would agree on any formal listing of these "trade secrets," but the ones I shall mention here are certainly of universal application. Many of them, as you will see, are not original with me at all, but were handed on to me by officers senior to me.

As an Engineer officer I am conscious that leaders of my arm have a responsibility and an opportunity that officers of the other arms and branches rarely get. This is the leadership of civilians. And while the principles are the same in the leading of civilians as they are in the leading of soldiers, there is often a great difference in the emphasis that must be placed on the principles. I have had officers work for me who had been outstandingly successful in the command of troops but who were not able to get results in an engineer district working with civilian employees. Their trouble was largely one of not being able to recognize the differences that existed. Another responsibility we in the Army's Corps of Engineers have more frequently than other officers is sharing the leadership of a community, a state, or a river basin. The responsibilities of a community leader demand the exercise of the finest judgment in the application of the principles of leadership. I mention this because I believe this diversity of experience gives Engineer officers a broader understanding of leadership problems than most officers of other

arms and services are privileged to get.

**T**O me, a successful leader is a man who gets people to do something that they may not want to do and gets them to do it willingly, enthusiastically, efficiently, and when he wants it done. He cannot expect to get results if he treats every individual exactly the same, because different persons react differently to the same kind of treatment. I do not mean that a division commander has to treat each individual soldier differently. It means that the members of his command with whom he has close and continuing contact—his staff and major commanders—must be handled on an individual basis so as to get the fullest possible performance out of each man.

Before I get into my "trade secrets," I would suggest to the junior officer that he constantly engage in self-analysis of his successes and failures as a leader, and seek advice of older officers when he has doubts or questions. This will help him grow as a leader.

**BE YOURSELF** is the first of my trade secrets. Don't try to act the part that you think a commander should play. When you do your insincerity is evident, you are spotted as a phony, and you lose the confidence of subordinates and superiors.

Our next trade secret is to **BASE DECISIONS ON FACTS**. Get all the facts that you can in the time you have. If a decision has to be made before you are able to get all the facts, you will have to take a calculated risk. In other words, based upon the information available to you at the time you make your decision, make it; but if you have time to get all the facts, get them. When, as a colonel, I took over from the Chief Engineer of ETO in Frankfurt, pending the arrival of another general officer as his replacement, he called me in and said: "Lou, I'm turning over to you. I have full confidence in your judgment. You're going to have lots of problems to solve. I have just one piece of advice: get all the facts, make up your own mind, and then go ahead and do it." Don't make quick decisions just to appear to be a decisive officer. Make them as quickly as possible after you get the facts.

**DON'T CHANGE EVERYTHING JUST TO SHOW YOU'RE BOSS, OR JUST TO BE DOING SOMETHING** when you take over a new job. The man you replaced probably knew more about the job and its problems than you do. I always sit back and find out why my predecessor did things his way. My early impression may be, "This is wrong and we've got to change it," but many times after a little watching and waiting the reason for doing things his way became crystal clear. Find out why things are done as they are, evaluate those reasons against your experience, and then make your changes. This doesn't mean that when things are in a mess you shouldn't move right in and clean house.

**DON'T ACT IMPORTANT.** If you *are* important, everyone knows it; and if you're not, you can't convince very many people by the way you act. When I was the division engineer I had five districts, and whenever I got a new district engineer I would have him come into my office and sit down alongside me and I would say: "Where you're going you will occupy a very important job. The things that you do, the things that you say, the recommendations that you make, and the actions that you take may decide for fifty to a hundred years the future development of the river basin or the area in which you are working. The people out there will look on you as an important person, not because you are John Jones, but because you're the district engineer. So long as you go out there and don't act important, I know you're going to do a job for you have all the ability needed to do a job. But the minute you start playing Mr. Big, you've lost all value to me, because I know you will have lost all value to the Corps of Engineers in so far as getting this job done. You can't play Mr. Big and hope to get cooperation from the community."

**AS** Engineer Commissioner of the District of Columbia, I paid a courtesy call on the President. I never had the honor of meeting the President when he was in the service. I will never forget the friendliness, the cordiality, and anything-but-important-acting on his part. When I entered his office he said "Come over and sit down." He didn't ask, "Have you ever been in my command?" but said, "Prentiss, where have I ever served with you before?" That shows the type of man he is, that he never tries to impress you with the big-

ness and importance of the job and of himself. So don't try to act like Mr. Big. You don't fool anyone and you don't convince anyone. You just make a fool of yourself.

**PEOPLE ARE YOUR MOST IMPORTANT TOOLS.** People are the tools that officers must work with to get a job done, and unless you study people, and always with the thought in mind, "How do I affect people?" you are never going to be an effective leader. You may be so wrapped up in yourself that you can't see that you're rubbing everyone wrong. When you study people, study cause and effect. If the effect you make is not good, if the result is not there, find out why. Nine times out of ten the cause is in you. So when you're having trouble with people, start examining yourself. When I was ROTC duty out in Colorado, I went to a church meeting one time and I never forget the little talk after dinner that the Bishop of Colorado made. "I know the problems that you people have living up here in a small community," he said. "All of you, I know, have neighbors that are bothersome and cause trouble, and so do they." That impressed me, because we always think the trouble lies with the other fellow, and we don't stop to find out if maybe most of the trouble isn't right within ourselves. So, when I say "study people," I mean study reactions and try to connect the reactions you are getting from people with what you're doing, what you're saying, how you're saying it; and if you're not getting the results you want, you had better start working on yourself.

**CONTROL YOURSELF.** One of the most brilliant officers of the Corps of Engineers is his own worst enemy because he can't control himself. When things begin to go wrong a little, he gets angry. Now one danger in getting angry is that anger warps judgment. Warped judgment leads to poor decisions, and no good leader makes poor decisions very often. If you make poor decisions, you will be replaced and lose the opportunity to lead. Another danger of anger is that things get said in the heat that can destroy in thirty seconds everything you have done to create good morale. If you want to control others, you must first control yourself.

**ESTABLISH HIGH STANDARDS.** If you're satisfied with a mediocre performance, you're never going to get more than a mediocre performance. If you set high standards for men to shoot for, if you

set high standards for your units, they will get a great deal of pleasure, satisfaction, morale and *esprit* in obtaining and reaching them. But unless your standards are high, you will find plenty of people working for you who are perfectly satisfied with low standards. If you want a superior organization, don't be satisfied with anything less than superior results.

**RESPECT THE IDEAS OF OTHERS.** Frequently we get into discussions with our subordinates and find that we have varied and diverse points of view. As a leader you are the one who must make the decision. When you make a decision that a member of your staff disagrees with, don't belittle him, his opinion, or his convictions. Even though you know he is wrong, you've got to make him feel that you respect his ideas and are appreciative of having had the opportunity to get his side of the picture before you've made your decision. If you treat him that way, his reaction will be: "Well, I've told you how I feel about it and you have taken my ideas into consideration. I can't ask for anything more and I'm with you." But if you try to show him up in order to make yourself feel superior, he'll buck you and your decision all the way.

**TRY ALWAYS TO MAKE EVERY PERSON UNDER YOUR COMMAND FEEL THAT YOU RECOGNIZE THEM,** know what they are doing, and appreciate the part they are playing on your team no matter how small it may be. It pays to spend a little time with individuals whenever you have an opportunity, and talk to them about themselves and not about yourself. Whether you command a platoon, a company, or a larger unit, make as many of your men as you possibly can feel that there is a connection between them and the top man. You'll find that the friendly attitude is one which makes people say, "I like to belong to this outfit." Courtesy is more necessary on the part of the senior to the junior than it is on the part of the junior to the senior. I once knew one officer who, when an enlisted man saluted and said, "Good morning, sir," replied, "Never mind the chit-chat, just salute." You can well imagine the reaction to that response.

**LEARN THE VALUE OF TIMING.** There are so many things you can do and do easily if you do them at the proper time. But if you try to do them at the wrong time you not only won't get them done; you'll be banging your

head into a brick wall. Timing is just as applicable in a tactical situation as it is in the administration of a city, in the handling of a program for the development of a river, or running a post. If you time your actions correctly, people will say: "Things certainly do go smoothly around here. I've never seen anything like it." If you time them wrong, people say, "What in the world is he trying to do?" And things get all snarled up.

**WELCOME RESPONSIBILITY.** If you're going to be a leader, you must recognize that leadership and responsibility go hand in hand. Unless you are earmarked as a man willing to accept responsibility, you're never going to be recognized as a leader. There have been times when I have been told, "You're going to get such and such a job," and I have said to myself, "I'm not adequate; I don't see how I can handle it; I don't know enough." But I never said it aloud. I would think it over and say to myself, "Now if I don't get this job, who are they going to put in it?" After looking around to see who was available, I would say to myself, "Well, if I don't get it So-and-So will, and I know I'm just as good a man as he is, so of course I'll take it and give it all I have." Once you refuse responsibility, you've reached the ceiling.

**LEARN HOW AND WHEN TO DELEGATE AUTHORITY AND RESPONSIBILITY.** I learned that lesson when I was a second lieutenant in the Field Artillery. I was assigned to a gun battery in the 4th Field Artillery down in Panama. My battery commander was an older officer, and a very fine one. He would get his three officers and his first sergeant in each day and outline the work for tomorrow, and he never assigned anything to himself. He always had everyone else doing all the work. He commented on it one day: "You know, that's the way I always run things, because the minute I assign anything to myself to do, then nobody is going to be running the battery." So he was kept busy doing those things that he could not foresee, and in getting around to see to it that the rest of us were on the job. I have known district engineers who had tremendous responsibility involving millions of dollars in contracts and in payrolls and in other expenditures. But they did not delegate responsibility and authority properly, and the result was they became the de luxe bottleneck in the organization. Nothing came out of the office until

the district engineer had personally seen it, personally corrected it, and personally had it rewritten and personally signed it. When you begin to get into big jobs, you must delegate authority and responsibility wherever appropriate and possible, and you've got to assume until proved otherwise that every one of your key people is going to try to do just as superior a job as you're trying to do, and you've got to give them a chance to do the job on their own.

**DEVELOP YOUR STAFF.** Outstanding leaders in the business world and in the industrial world habitually surround themselves with good men. People often say of our outstanding military leaders, "No wonder he can do such a good job; look at the staff he's got." The one thing we forget sometimes is that all of this staff in the military service comes out of the same kettle. You turn this spigot for a lieutenant colonel and that one for a full colonel. You are not always able to pick and choose your own staff, but you take what the Army is able to send you. The good leader has a good staff because he knows how to handle officers and develop their full potential. He gives them an opportunity to demonstrate what they can do, and because of that opportunity they rise to the occasion and do a good job. So, one indication of good leadership is the ability to get the most out of your staff and develop their full potential. Time and time again you'll see a man suddenly bloom as a staff officer, and people wonder why this man's ability

has never been recognized before. The answer is that someone has been sitting on top of him and holding a bushel basket over him. A good leader develops a good staff.

**DEVELOP LOYALTY.** Don't expect your people to be loyal to you if you are not loyal to the man for whom you are working. The attitude which you, as a leader, take toward the policies, orders, and directives from topside, is going to be entirely reflected in the manner in which your orders, directives and desires are carried out by your subordinates. If you buck and fight everything from topside that you don't like, the people who work for you will think that is what they are supposed to do. So they'll buck and fight everything they don't like that you try to put across. This doesn't mean that we want yes-men. It means that when a decision is reached by your superiors you accept it and in the same way your people will be loyal to you when you make a decision. One of the best ways to demonstrate loyalty is to learn to take blame and give credit. Nothing makes a junior officer, a staff officer, or a high commander angrier than to see someone take all the credit for something which was originated and carried out by someone under him, or to place the blame on someone else for something for which he was responsible. If you want loyal subordinates, learn to say, "It was my fault; I'm the man responsible here." Take all the blame from topside and work out your problems below, but don't try to push the blame off on a

subordinate in order to clear your skirts.

**USE ALL YOUR TOOLS.** Too many people don't use tools they have that can make their job easier. When I was ordered to Fort Belvoir I met a former Chief of Chaplains whom I had known before. "You are going to have a wonderful opportunity," he told me. "If you don't mind a little advice, use your chaplains and support them by personal participation in all of their activities. The conditions existing on an Army post habitually reflect the degree of personal support given by the commander to his chaplains. Many post commanders don't realize that they are spending much of their time trying to correct trouble spots that develop because of improper living attitudes on the post instead of helping the chaplains prevent the things from occurring in the first place." The same thing is true of our special services officers and the other morale agencies. Make full use of them by giving them your full personal support.

**BALANCE IS NECESSARY.** I have known officers in the Corps of Engineers who were brilliant men and as fine technical engineers as you would find anywhere in the country. But as Army Engineer officers they weren't worth a dime because they lacked balance. Balance means having a "feel" for things that will instinctively lead you to devote your personal attention to the appropriate subject at the proper time and not overemphasize one subject at the expense of another. When things are not going right, just ask yourself, "Am I a well-balanced officer, or do I go off at a tangent and let something go by because I am concentrating my attention elsewhere?" We have had wonderful officers whose careers have never amounted to anything because they lacked balance.

**I**N summary, I can do no better than to quote a paragraph from a talk given by General Sturgis, our Chief of Engineers: "Neither bars nor stars make an officer. An individual becomes an officer only when he develops those inner qualities of honesty, self-sacrifice, and attention to duty that are always inherent to real leadership. . . . There must be that desire to lead with high moral character and unsurpassed fortitude and to live by the written and unwritten code of ethics which the officer corps of the United States Army has evolved during the long period of its existence."

**Major General Louis W. Prentiss** entered the Army as a second lieutenant of Field Artillery in 1921, after graduating from Colorado School of Mines. He transferred to the Corps of Engineers in 1929. He is a graduate of the Field Artillery School (1922), The Signal School (1923), and The Engineer School (1932). He has served with artillery units, as post signal and ordnance officer, on ROTC duty, and on civil engineering projects. During 1941-42 he was supervisor of basic and general training at the Engineer RTC and its executive officer, later moving up to the Directorate of Military Training at ASF headquarters in Washington. In 1944 and 1945 General Prentiss served in the Office of the Chief Engineer, ETO, and in 1946 was Deputy Chief Engineer and Acting Chief Engineer of ETO. After a tour as Assistant Chief of Engineers for Personnel and Administration he became Engineer Commissioner for the District of Columbia in January 1953. He has commanded Fort Belvoir since December 1954. His retirement on 29 February was announced "with regrets," by the Chief of Engineers. He is a member of the Executive Council of AUSA.







Unattractive and unwholesome camp sites such as this were common in the early days of ARAACOM. Neither the Army nor the communities had any pride in them.

Such eyesores are being eliminated as ARAACOM units obtain unpretentious but attractive housing on neatly landscaped sites such as this one in the Los Angeles area.



LT. GEN. STANLEY R. MICKELSEN  
Commanding General, ARAACOM



# ARAACOM

## ALWAYS ALERT

COLONEL E. T. ASHWORTH



It may be truly said that never before have there been available such awesome weapons with which to combat an enemy air force as there are today in the arsenal of the Continental Air Defense Command (CONAD). This arsenal includes air-warning devices, aircraft interceptors, the most modern of antiaircraft weapons and, in the Army's Nike, the latest in guided missiles. These latter weapons testify to the vital part the Army Antiaircraft Command (ARAACOM) has in defending America from air attack.

With Nike in the forefront of its field of weapons plus the conventional guns of the command, ARAACOM has the responsibility of providing a ring of defense around the vital population centers—the industrial hearths and the strategic areas of the country.

About a score of these protected areas have already been established in the United States, providing the best defense known to man. And at each it is an all-around defense, of course. For there is no one who can describe the certain course of an attacking bomber.

To provide this defense for America, the Army has gone all-out in research and development, in production of finished products, in training of highly skilled technician-operators, and in locating the trained units at critical stations.

The Department of the Army is continuing the same stress and the same urgency in maintaining our antiaircraft defenses at a superior level. Research and development continues; training is unabated; and there is the steady demand for more units to protect other areas.

It is only by maintaining such a position of readiness that our whole national policy is assured of success. There could be no retaliation—no fighting back by America—if the nation was left undefended and unprepared. We cannot permit an enemy to cripple our ability to produce the material to wage war.

To accomplish its share of this vital mission of protection, ARAACOM from its headquarters at Colorado Springs, Colorado, directs the men who maintain the battle positions. And they *are* battle positions. We must constantly regard them as such. In not more than a few hours, or even perhaps a few minutes of time, the success or failure of our defense system will be determined.

ARAACOM's capability depends upon the weapons provided it by American industry and upon finely trained, skilled technicians who must demonstrate

**Colonel E. T. Ashworth**, Artillery, is Chief of Staff of ARAACOM, at Colorado Springs. Commissioned in the Coast Artillery Corps upon graduation from the U. S. Military Academy in 1933, Colonel Ashworth is also a graduate of the Armed Forces Staff College and the National War College.



ARAACOM's arsenal includes the deadly Nike

their alertness and readiness at the critical time. The latter is a matter of constant attention by ARAACOM and all subordinate commands. In fact, it is a source of major effort on the part of the entire Army. For the whole continental Army structure contributes materially to the logistical and administrative support of ARAACOM.

It is perhaps difficult to grasp all that has been done in a few short years to guard this frontier of America. Tremendous strides have been made since the formation of ARAACOM in 1950 and CONAD in 1954. The Army's antiaircraft artillery has moved from a position of a few scattered battalions "near" their sites to a full command position that welds all elements into a coordinated, cooperating defense. All types of gun battalions—the 75mm Skysweeper, the hard-hitting 90mm, the powerful 120mm, and the supersonic Nike guided missile—are in their places ready to do battle.

The creation of new units and the turnover of personnel within existing units provide opportunities for advancement in technical knowledge and capability and in rank.

ARAACOM's physical facilities are being improved. Buildings at gun and Nike sites are in harmony with the architecture of the locality. This provides exceptionally attractive operational buildings for units and also is a source of great relief to local citizens who had feared the sites would become eyesores. Housing for families has top priority. Since ARAACOM headquarters operates directly under the Chief of Staff of the Army, there is an autonomy of control that assures the greatest possible consideration for the individual who is a member of the great ARAACOM family.

These substantial items, coupled with scores of other considerations, have resulted in increasing morale and *esprit* despite the long hours and gruelling demands antiaircraft artillery service has required.

All these things have taken place as extensions of our national policy. ARAACOM will be on the alert as long as there is the threat of attack upon us.

# THE MONTH'S READING

## Conservatives and Radicals

AIR VICE MARSHAL E. J. KINGSTON McCLOUGHRY  
*The Direction of War*  
Frederick A. Praeger, 1955

Even today the individual and collective outlooks of the tripartite High Command have still to settle down. One particular aspect which has yet to be resolved is that, whereas the Army and Navy concepts of war are both conservative, the Air Force has two distinct trends. One is conservative, and includes the officers whose horizon is limited to that of their own experience. We have the example of the high level officers who, between the wars, using their experience of the First War, resisted the introduction of eight-gun fighters to replace the old two-gun. Today, we have senior officers whose resistance to guided weapons has already retarded the date of their introduction into service. The other trend of the Air Force over-stresses the potentialities of current weapons, and is vaguely optimistic about the next family of air weapons. They see air power as the panacea of all our war problems, virtually to the exclusion of the other two Services.

## Selective Capacity of Massive Proportions

JOHN FOSTER DULLES  
Address, Chicago, Ill.  
8 December 1955

We have developed, with our allies, a collective system of great power which can be flexibly used on whatever scale may be requisite to make aggression costly. Our capacity to retaliate must be, and is, massive in order to deter all forms of aggression. But if we have to use that capacity, such use would be selective and adapted to the occasion.

## Penny Wisdom in Defense

EDITORIAL  
*The New York Times*  
23 January 1956

News from Washington of a severe reduction in strength of the Army's Special Forces troops—the so-called “freedom fighters”—follows announcement of a one-third cut in the strength of the First Cavalry Division (organized as a modern infantry division). One group affected—the Tenth Special Forces Group—is in Germany; the First

Cavalry Division will soon be the Army's only combat unit in Japan. Both units are thus overseas in the first line of defense against potential enemy aggression; both are combat units supposedly trained and ready for battlefield action instantly.

The Special Forces troops, in particular, are a very highly qualified unit. They are trained for operations behind enemy lines in case of war, and were organized belatedly in recognition of the great need for more stress upon guerrilla operations. The Central Intelligence Agency transferred this function to the Army, and the Army, acting with energy and imagination, selected and trained a body of daring specialists—many of them linguists and former citizens of Germany or Iron Curtain countries. The organization of Special Forces was one of the most hopeful and forward-looking moves for many years. Now, after only a few years of life and just when they are approaching their optimum usefulness, the Tenth Special Forces Group in Germany is to be reduced by two-thirds, and the one group in this country—the Seventy-seventh—is to be cut by one-quarter. What this will do to morale, esprit and backlog of experience can be imagined. What makes the reduction more difficult to understand is the fact that Special Forces would have major utility in any type of war that can be envisaged—from all-out nuclear war to limited conflicts.

In Japan the case of the First Cavalry Division is too reminiscent of the situation there just prior to Korea to be comforting. At that time, it will be recalled, our regiments had been reduced to two battalion units. After the Korean conflict started it took months—and cost lives—to flesh out outfits which should have been at full strength. Korea should have taught us that no overseas combat unit—which is bound to be in the front line of enemy aggression—should be maintained except on a full-strength, instantly ready-to-go basis.

Cuts like these may save a little money now, but if hostilities should come they would certainly cost lives. This sort of reduction appears on the basis of the known facts to be a penny-wise-pound-foolish policy.

## Britain and NATO

H. A. DeWEERD  
*Foreign Affairs*  
October 1955

British leaders do not necessarily believe that the ground forces and tactical air forces now allocated to NATO can

stop a Soviet invasion of Western Europe, but they think that the presence of these forces will affect any Soviet decision whether or not to attempt such an invasion. It is generally assumed that the 30 Soviet divisions deployed in East Germany and Poland will not be able by themselves to defeat the NATO forces in a surprise attack. The mobilization of additional forces in the Soviet Union would supposedly give the Western Allies a period of warning—what Churchill called “an alert”—in which to evacuate their cities and issue a final warning to the Soviet Union, perhaps by revealing the full extent of Allied preparation for atomic war.

Alarmed by the Communist coup in Czechoslovakia, the Berlin blockade and the Korean war, the British Government sanctioned plans for the adherence of West Germany to a European Defense Community and the creation of a West German force of 12 divisions. The addition of these forces to NATO might increase the probability of an adequate alert period. It might also convince the Scandinavian countries that they could risk extending the protective radar network to cover part of the Atlantic and North Sea route for attacking Soviet bombers. Finally, it was hoped that the existence of 12 fully equipped and trained West German divisions might permit the withdrawal of British divisions into a central reserve. This reserve would be given unprecedented mobility by the construction of a fleet of long-range jet transports.

It must be noted, however, that in order to bring Germany into the Brussels Pact and NATO under terms acceptable to France, Britain had to promise to maintain four divisions and one tactical air force on the Continent. This promise would seem to reduce the projected central reserve to forces withdrawn from the Suez Canal Zone, and from Malaya and Kenya when these are “pacified.” The limited size of the reserve, at best a few divisions, seems to indicate that its primary function will be in limited or peripheral wars; so small a force could hardly play a decisive or even important role in an all-out war with Russia.

### **‘Brilliant Team’**

BRIG. GEN. THOMAS R. PHILLIPS  
*The St. Louis Post-Dispatch*  
15 January 1956

The Army, with a brilliant team of generals, led by Chief of Staff Maxwell D. Taylor and with the enthusiastic encouragement of Army Secretary Wilber M. Brucker, is preparing for the most far-reaching reorganization in its history to cope with the nuclear revolution in war.

At the same time Brucker and Taylor are conducting an active campaign of education within the Army to reassure career personnel that nuclear war has not diminished the need for the Army. The results accomplished within a short time have been phenomenal. Rather than being defeatist about the importance of the Army, officers and soldiers are again holding up their heads, feeling the weight of the insignia on their shoulders and sleeves and are getting busy

thinking through the problems of fighting and existing with nuclear weapons.

In their campaign to convince the Army itself, as well as the public, of the continued importance of the Army, the Secretary and the Chief of Staff have emphasized the deterrent value of ground forces and that the United States must be prepared to fight every variety of war, not just an all-out nuclear war.

The former Chief of Staff of the Army, Gen. Matthew B. Ridgway, gave the impulse to radical thinking to adapt the Army to nuclear war. This has been carried forward with increasing pressure by his successor, Gen. Taylor. Taylor is backed up by what may well be one of the outstanding teams of Army leaders ever assembled in the Pentagon.

The Army, at the same time, is fortunate in its Secretary. Brucker, a man of tremendous energy, intense interest in the Army and quick intelligence, has made the Army cause his own. He not only is promoting its cause himself, but is supporting the Army staff up to the hilt. His enthusiasm and support, in contrast to recent indifferent secretaries, has imbued the entire Army with new spirit.

Of the seven top Army men in the Pentagon, four have been paratroop commanders, two, Taylor and Lt. Gen. James M. Gavin, have been wounded in action, and all held high command or staff positions in World War II.

Taylor's vice chief of staff, Gen. Williston B. Palmer, commanded the Seventh Corps Artillery during the invasion of France and the succeeding battles up to the encirclement of the Ruhr. After the war he commanded the Second Armored Division and the Tenth Corps in Korea. He was moved up to his present position from assignment as deputy chief of staff for logistics. His main function is the administration and co-ordination of the Army and the staff, so as to leave Taylor free to lead and animate the Army.

The next heaviest responsibility probably lies with Lt. Gen. Carter B. Magruder, deputy chief of staff for logistics. Among other of his responsibilities is that of purchasing and distributing through the Army quartermaster corps more than a billion dollars worth of food a year under the single manager system for all three services. Magruder is one of the most remarkable administrators ever developed by the Army.

Lt. Gen. Walter L. Weible, widely experienced in every type of command and staff operation, is deputy chief of staff for personnel. He is known for his willingness to accept responsibility and his courage in making decisions.

Lt. Gen. Clyde D. Eddleman, deputy chief of staff for plans and operations, was chief of staff for Gen. Walter Krueger's Sixth Army throughout the Pacific war.

An outstanding member of the top Army team is Gavin, deputy chief of staff for research and development. He was brought into the Pentagon by Ridgway. He is the spark plug for the development of new ideas in the Army, in which he is backed by Taylor. If the Army does adapt itself to nuclear war, it will be due to the ideas that flow from Gavin's mind like sparks from a welding operation.

## THE MONTH'S CEREBRATIONS

### Separate Tactical and Nontactical Operations

I AM convinced we are going overboard in trying to run the Army like a gigantic commercial enterprise. No thinking soldier denies that an army the size of our 1955 model must be operated efficiently and economically. It follows that the catch-as-catch-can methods of pre-World War II days will not serve today. But how far can we go in adopting the techniques of a commercial corporation without jeopardizing the Army's ability to perform its basic mission: preparation for and conduct of tactical operations?

The end result of our financial management program is to give the commander all the resources—men, money, matériel—necessary to accomplish his mission, and to hold him responsible for their efficient and economical use. It has been also announced that the principles of financial management apply only to nontactical operations. This, in theory at least, appears logical and practical. But is it practical? I don't think we can separate tactical and nontactical operations. To begin with, in an operation (except for those nonmilitary activities like civil works which have been specifically assigned by higher authority) which does not, directly or indirectly, support or help to support a tactical unit, financial management is nonessential and should be discontinued. Every army installation should either house and/or train troops or provide matériel or service for them.

Here is an example of the interrelationship between nontactical and tactical operations. A division is activated at a large post in the Midwest. Being a T/O&E unit, it is not supposed to be affected by financial management operations. However, the post commander is responsible for equipping that division, and under present concepts he must cite so-called "consumer funds" on his requisitions. If he does not have the funds he cannot cite them. The division gets no equipment and can't perform its mission. But, you say, this would not be allowed to happen. Unfortunately, it is happening. A certain division which was being activated

required equipment for its engineer battalion, for which the post submitted requisitions to a depot. There was some delay in filling the requisitions. Meantime, the depot was instructed to fill no more requisitions for certain equipment without a fund citation by the consumer. The fiscal year ended, and the requisitions were returned for fund citation. The post, having no funds, went to army headquarters. Army, having no funds, went to Department of the Army. DA spent several weeks trying to solve the problem. Meanwhile, the battalion was without its equipment, and its essential training was being delayed. Perhaps such an incident will not recur, but others will. My point is that we have installed commercial techniques to the extent that they interfere with tactical operations. The result could be disastrous.

I believe a basic error was made in assuming that the Army as a whole can operate like a profit-making corporation, which it is not. I think some aspects of financial management can be used profitably through the Army, and certainly all aspects can be employed at installations that furnish services or products, and can operate like commercial activities. It may be practicable to provide consumer funds to all installation commanders to cite in obtaining expendable items, and possibly even such items as office furniture and machinery. Perhaps this technique will lead to more economical use of such items. But I think that to require a commander to pay for essential items not only serves no useful purpose, but endangers the performance of his mission. Certainly no responsible commander will requisition fewer items or use the items more economically because he has to cite funds on his requisitions. A unit's ability to obtain needed equipment should not depend on the availability of funds to local commanders, particularly when the equipment's cost has already been obligated. This double obligating may serve some purpose at higher echelons, but if it does, it appears that the same purpose could be equally well served by using open allotments, since that is only a bookkeeping transaction.

I believe we should reexamine the whole subject of business management in the Army, so as to place things in their proper perspective. Let us, by all means, promote efficiency and economy, but not at the expense of our ability to perform our mission of defending our country.

COL. STILSON H. SMITH, JR.

### R&D Is You and Me

R&D has been one of the Army's primary themes for some time now. During the last part of World War II, and during the Korea action, we have employed R&D with considerable success. General S. L. A. Marshall's report on the use of infantry weapons in Korea is a familiar example of the working type of research upon which much of our success must depend.

One phase of the R&D program we must not overlook is the great applied science laboratory within the Army itself. Many of us tend to degrade our own role as scientists. We don't seem to be scientists in the common connotation of the term, and are prone to overlook our potentialities.

Military science is as true a science as any other. Our daily activities may sometimes seem trivial, but they are just as surely a part of the applied phase of that science. Our training areas and our offices are the great laboratories where the theories of the research scientists are practiced.

It seems to me we should help the R&D program in any way we can, particularly by training ourselves to look on our work as objectively as possible, and by improving that phase of military science with which we are most concerned—our jobs.

Many persons are confused by the terms "research" and "development." They visualize a group of Ph.D.s with thick eyeglasses sitting around a computer, compounding abstract formulas and concocting secrets to replace the soldier with a machine.

Certainly research and development have functions of searching for the unknown, of inventing and perfecting new and unconventional methods of



warfare. But, surprisingly, the major portion of the R&D program is bent on improving and perfecting known and conventional methods. I would wager that General Gavin's office would be as interested in a new means of firing the M1 as it is in the development of the ICBM.

A most surprising yet depressing thing about the R&D program is the number of items developed by the technical services merely as a result of a question some civilian scientist asked himself: "I wonder what would happen if—?" True, that is the job he is paid to do; it is his professional life. But what would happen if every soldier who fires a machine gun asks himself as he lines up his sights, "Wonder what would happen if they put a new dingbat here?" My guess is that we would not for long have the same gun we have been using since World War I, good as it is. My point is that the best source of ideas for military use is the military itself—you and me.

This brings up another item of scientific procedure. How often have you had, or heard of, an idea that died on the vine? Maybe you really had something when you thought of that new range-deflection fan that could be used with all weapons on any scale map. Is the idea buried among your papers or lost among your thoughts? Perhaps more often the idea will lie dormant until we are buried, thus doubly interesting it forever.

Pass on that idea to someone who can do something about it. I am not suggesting that you write General Gavin personally and say: "Dear Jim: The other day I had a good idea and figured you might like to know about it." He would thank you for the idea, but he would soon be overwhelmed by the flood of correspondence. Look around until you find the proper agency for handling your idea, or until you find someone who can advise you what to do with it. Almost every school and installation has its combat developments office, or a similar agency. The Infantry School's Combat Developments Office is one of its major activities. Each month it processes many suggestions and new ideas for improving conventional weapons and tactics.

So if you have an idea, pass it on. Write it down, act on it, build a model. Do something to further that project about which you know more than anyone else—your job. The *idea* is what is important—your idea on a subject or

thing that might be of utmost importance to the Army.

Some things that are of utmost importance to the infantry, for instance, are simple ones. For example, we have been constantly experimenting with improving rifle marksmanship ever since we have had an army. It would not be exaggerating to state that we receive at least one letter a week suggesting some means for improvement. Are you satisfied that you and your men are fully trained to fire your weapons? Do you have some pet idea that would improve marksmanship, or shorten the training time?

We are in the midst of Exercise Trainfire I and II—training procedures devised by civilian scientists who conducted elaborate and exhaustive research, and came up with measures they feel will improve our rifle-firing program. But the amazing thing is that Trainfire contains nothing essentially new or revolutionary. You'd be surprised to find how many of *your* pet ideas are included. My impression of the reaction of officers to the text plan for Trainfire is that they are all surprised at its simplicity and common sense.

#### THE MONTH'S CEREBRATIONISTS

COL. STILSON H. SMITH, JR., FC, contributed "Misinterpretation—as Certain as Death or Taxes," in the December issue. A 1934 graduate of USMA, he is Assistant Comptroller, Headquarters Second Army.

CAPT. MARVIN E. RICE, Infantry, is staff officer responsible for R&D projects in the Weapons Department, TIS. He enlisted in 1942, was commissioned in 1945, and integrated into RA in 1948.

CAPT. ARTHUR R. DRISCOLL, JR., Infantry, after enlisted service in the Navy during WWII, graduated from USMA in 1949, and is now a student in the Advanced Course, TIS. A previous contribution appeared under a pseudonym.

PFC. WARREN J. LEMON served overseas from 1946 to 1948 with the 21st Infantry and Pacific Stars and Stripes. He attended Georgetown University for three years before reenlisting in May 1954, and is now assigned to Redstone Arsenal.

Another vital need is for a better means of firing the machine gun at night. Most of us are familiar with the clinometer-and-dial method and with such expedients as the notched stick and the aiming stake. While practical, none is completely satisfactory, and you could become relatively famous if you devised an acceptable substitute for any of those methods.

When teaching the soldier to fire the rifle, we all keep in mind that trite but true expression, "And the greatest of these is trigger squeeze." What if the recruit didn't have to squeeze the trigger? Perhaps a pressure plate or a lever would do it for him.

Have you ever thought how contrary to human action it is to operate the handwheels on the machine gun? When you turn a wheel down, does the muzzle go down? It goes to the right. Turn it to the right, and the muzzle goes up. Perhaps you machine gunners can give a workable solution.

By now you may be convinced that research and development are not confined to the scientist's laboratory or the researcher's library. If the R&D program is vital to the Army—and we all agree it is—and if a real laboratory of applied science exists in our units, let's become scientific in our approach to our problems and make our contribution to the common effort.

Try it next time you sit down at your desk, or lie behind a gun, or squat down to study a map. You too can become an R&D expert. You are already one, in the Army's biggest, most expensive laboratory. R&D is you and me.

CAPT. MARVIN E. RICE

#### Keep the Idea-Pot Hot and Bubbling

**R**EDUCTIONS in the Army are not the result of a great economy drive. They are accepted by the American people because too many of our citizens think a large army is no longer necessary. More threatening to our army's future is the charge that it has been unable to grasp and to grow in the Atomic Age. ARMY magazine is aware of this dangerous concept and "... strives to ... show that the Army is alert to the challenges of new weapons, machines, and methods." For our own sake we have to prove it right. If we rely exclusively on the concept that wars are won by the men who take the ground, we are fair game for the taxpayers and air-will-win advocates.

We in the Army, whether at the

drawing board, in the classroom, or in the field, can produce imaginative and realistic concepts to satisfy even the most imaginative people. And we can still be true to our tenets.

Some five years ago, in the Canal Zone, an infantry battalion commander demonstrated really imaginative thinking in an ordinary situation. As an additional duty he was appointed the Jungle Warfare Board's first president. Being new, the board's mission was general. The battalion commander's primary duty was demanding, his resources were nil, and his board members were possibly apathetic. Circumstances were ideal for mediocre work. Borrowing a stenographer from area headquarters, the president called for the first meeting to be held in the only available location—an unused barrack basement.

The members arrived during a tropical downpour at what they expected would be just another conference. The president had anticipated the apathy of a group of good but disinterested and unmotivated officers. In less time than it took to make introductions, to call the board to order, to adjust a South Carolinian's accent for a worried stenographer, and to state the board's mission, he fired the members with his leadership and imagination. As he saw it, there was no limit to the mission: therefore, he had dreamed up some of the most Rube Goldbergish ideas found outside the funny papers. In addition to the jungle problems with which all members were familiar, the president had discovered others that were as important though less apparent.

In evolution, the most intriguing projects became classified, but the following examples illustrate those discussed at this first meeting. The signal officer was started on a project to provide for observed communication through a dense jungle. The medical officer was told to work out a model pair of sunglasses which could be worn indefinitely without discomfort. (As I recall, the doctor developed an excellent contact lens which was made from the bottom of a beer bottle.) The engineer was given two projects. Before the advent of LeTourneau's Jungle Destroyer, he had to work up the specifications for a mobile, mechanized jungle cutter. His second job was to collaborate with the signal officer in designing an electronic direction finder to supplement a limited lensatic compass. The quartermaster drew the re-

quirement for a sealed, complete meal which could be cooked in its container. (This was before TV dinners became a part of the American diet.) And so on down the line this battalion commander turned board president gave projects to officers of each arm and service. Although some projects were weird, they pointed up the president's purpose and challenged the members' ingenuity. With each meeting the board became more enthusiastic, more contributive, more imaginative. Under the president's control the board never strayed far from reality, and did much research on common jungle problems. This officer was a realist. He didn't want to rewrite a manual that was almost perfect, but he did want to add to the research library.

One result was the excellent Jungle Warfare Center.

Some of this board's ideas have been adopted. Some are still, I assume, in classified development. Others were proven unfeasible. The point is this: a busy battalion commander took the time and used his brain to present a different approach to what might have been an ordinary mission. At the same time, he taught twelve other officers the value of a brain properly used.

What became of my battalion commander? He wears the Medal of Honor in recognition of another imaginative feat. He is now a colonel serving in the Far East. And I can tell you this: he would be the first to shake the hand of the officer who invents the means for four-dimensional envelopment, or the soldier who perfects a flying foxhole.

CAPT. ARTHUR R. DRISCOLL, JR.

### Training Service Troops

I THINK it's time something is done about the training of service troops. My opinion springs from the fact that what you see in SU and TU units in one army area, you can see in similar units elsewhere.

I assume we still accept the premise that you are a soldier first and a technician second. Yet, in the past fifteen months, spent in two army areas, I had two periods each of marksmanship and PT tests. No marches, bivouacs, field problems or infiltration refreshers. I'll grant the virtue of portions of films and lectures and their value as aids to training. Allowing for inevitable exceptions, I should say that the preparation and presentation of the subjects I observed deserve a rating of

"good." I do not mean to reflect on the units which conducted the training. The fault seems to lie in the concept behind the program, which considers that all the training service troops need can be done by films and lectures, and conducting an annual trip to the range, along with the semi-annual PT tests.

For more than sixty weeks I observed varied ranks nodding at lectures and napping through films. Posting look-outs to prod the indifferent is no solution, serves only to increase apathy, and reveals the lack of teeth in the program. To arouse genuine interest we must vary the subjects by including generous portions of time for related activities, conducted in the field under combat conditions.

No matter how well he does his job, the homesteader is a half-soldier. The inertia of peacetime routine cannot be overcome by periodic crack-downs by energetic higher commanders. Such efforts simply stir up dust. Another factor that contributes to the general ineffectiveness of service-troop training is the widespread indifference of draftees who abhor military life in all its manifestations.

We need a dynamic program directed from the highest level to intensify the training for service troops by broadening its present scope, at the same time allowing a commander to logically implement the program to conform to local conditions.

I would like to see this training embody these features: Examinations in subjects taught through films and lectures, the results of which would indicate to DA how well troops are absorbing instruction. Grades could be awarded and made available to promotion boards. Compulsory quarterly visits to the range to fire all weapons. A compulsory annual infiltration refresher. At post level, two or three bivouacs annually so that job performance can be rated in the field. Compulsory participation, however limited, in army-area maneuvers. Real recognition by DA of the necessity for training service troops during peacetime to function properly in combat.

If we still believe that a soldier is a soldier first and a technician second, we must also believe that the U. S. Army is responsible for developing his military proficiency. After all, it is obligated to train him so that he can perform and survive in combat.

PFC WARREN J. LEMON



## The IRBM: Artillery Support Weapon

(Continued from Page 16)

never changed its position except, perhaps, to alternate sites in the same vicinity.

*A single commander controlled both the maneuver and fire support. Such control was always necessary and it always will be. Visualize the time consumed, creating perhaps fatal delays, if there were two commanders—if a maneuver commander and a fire-support commander had to agree before they could attack or before they could react to the unexpected—which is the normal situation in war. What if, for any reason, they couldn't agree on how to handle a rapidly developing crisis? The future battlefield will be a poor place for an argument between two co-equal commanders.*

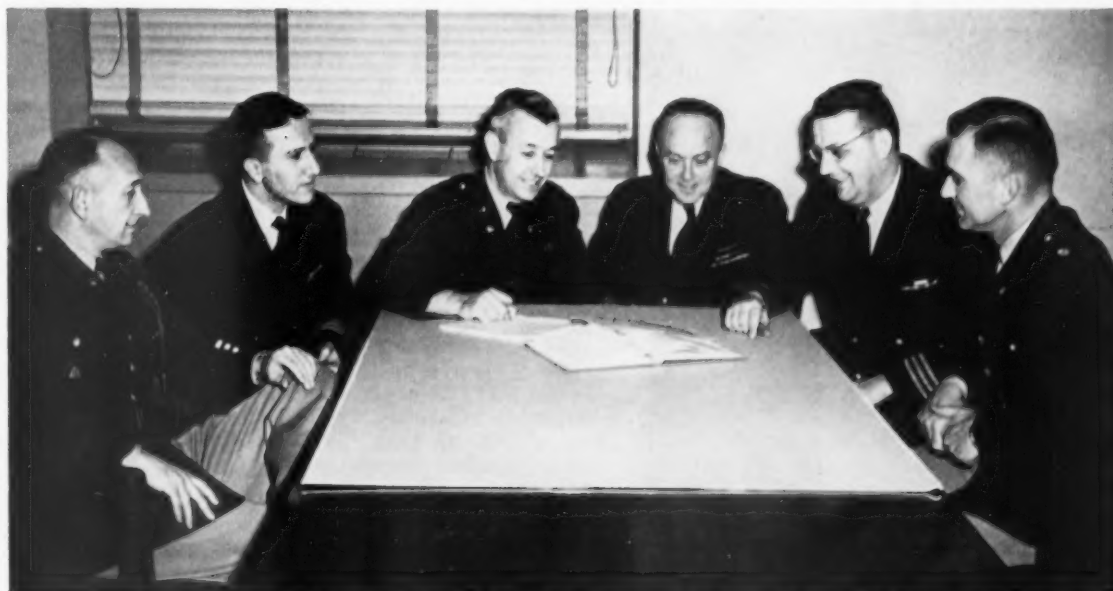
The fact that the artillery may be sited hundreds of miles from the forces it is supporting does not alter the situation; it remains a tactical situation. The tactical objective of the artillery and the tactical objective of the infantry-armor-engineer battle team the artillery is supporting are identical. That force will be constantly on the move to avoid being fixed and annihilated by the enemy artillery. It will be in close proximity to targets about to be attacked by long-range guided-missile fire. *There can be no other choice but unity of effort under a single commander.*

TO sum is all up, a modern military force must be capable of fighting either a nuclear or nonnuclear war. And whether the weapons used are nuclear or not, their use must be accompanied by the ability to follow with physical occupation. Otherwise war will be indecisive or will be made decisive only by senseless and total destruction and the defeat of the very aim we seek, lasting peace.

Army forces capable of seizing objectives must be used to force the enemy to maneuver into vulnerable situations. To do this they must have fire power integrated into their maneuver. Their commander must control both the maneuvering elements and the fire support elements, no matter how distantly removed one is from the other. If he doesn't, the metronome of fire-power application will always be several beats behind the need and chaos will result.

The application of this fire power must be either from within small, highly mobile battle groups or from launching sites far to the rear. The vulnerability of the large guided-missile units and the nature of their logistics dictate the greater range.

This mission of the Army is unchanged. Only the tactics are changing. These changes require new concepts of fire support. Because of these new concepts the guided missile with 1,000 to 1,500 miles of range (the IRBM) is a prime and critical requirement of the Atomic Age Army.



**THE IRBM PLANNING STAFF.** This is the military staff to the Executive Committee for the Joint Army-Navy Ballistic Missile Committee. (From left to right: Lt. Col. C. L. Smith, Comdr. J. E. Volonte, Col. D. C. Lewis, Capt. K. Harper, Comdr. R. E. Freitag, and Lt. Col. D. G. Gauvreau.)



## THE ARMY'S MONTH

(Continued from Page 9)

The increase in power and authority of the Secretary of Defense, the Bureau of the Budget, and the Chairman of the JCS has resulted, Baldwin wrote, in a situation where "there is less chance of minority views [in the JCS] which might be the correct views, reaching the President."

In 1953, General Omar N. Bradley, whose experience in this area of government is still unmatched, said:

"Generally, I do not feel that it is Joint Chiefs of Staff responsibility to recommend specifically which course of action the Government should take. We should confine our part to pointing out the military implications and military capabilities. . . . I do not believe that we should publicly, or before Congressional committees, fail to support the decisions made by our civilian superiors. In Congressional hearings we feel free to give our personal opinions and to point out the same capabilities and risks that we had pointed out before any decisions were made—so that the legislators will have as full and complete information as the Secretary of Defense, and the Commander-in-Chief, and the Secretary of State—but I do not believe that we should go beyond this."



GENERAL TAYLOR

WHILE General Bradley stated the principle well, it did not, unfortunately, work for General Ridgway. One explanation that has been published of General Ridgway's assertion that he "most emphatically had not concurred" in the military program for 1954 shows how the ground rules, as he understood them, were not followed.

This explanation goes back to late 1953. The Secretary of Defense at that time asked the JCS to have a study group consider what strength and com-

position the armed forces should have four years later—in fiscal 1957. The Secretary suggested two conditions: the manpower ceiling should be about three million men, and the defense budget should be \$34 billion or less. It was understood that this study was to be distinct from the budget for fiscal year 1955, then in preparation.

When the study group had completed its labors, the Joint Chiefs of Staff forwarded its findings to the Secretary of Defense with a statement that stipulated that any change in the international situation, anywhere in the world, would necessarily affect the program. As some changes, either for better or for worse, would certainly occur in the following three years, it is quite clear that the JCS approval was merely academic. And certainly the JCS must have reminded the Secretary of Defense that the study had been undertaken and completed at his direction.

General Ridgway's concern and his later assertion that the budget was based on a "directed verdict" stem from the fact that the study group's figures were applied to then current budgets without reference to the conditions that made it possible for the JCS to approve them in their original form.

### General Taylor's Opportunities

IN recent months there have been indications that important segments of American opinion are beginning to appreciate that national security and deterrence require more than a reliance on air power carrying awesome weapons. How much of this is due to General Ridgway's dogged persistence can never be measured, but it does seem possible that his statements may lead the Department of Defense to questioning its handling of its relations with the military chiefs and search for an improved relationship. This could well lead to an atmosphere that would give General Maxwell Taylor an opportunity and one he isn't likely to muff. In the few months he has been at the helm of the Army, General Taylor has shown more flexibility in approach and reaction than his predecessor. He also has a not-to-be-underestimated advantage of serving a Secretary of the Army who is not only enthusiastic for the Army, but is a loyal member of the Administration team and was Mr. Wilson's personal choice for Secretary of the Army. This, plus Mr. Brucker's practical savvy of how to



Two leading figures in the Army development of a IRBM—Maj. Gen. John B. Medaris and Dr. Werner Von Braun—pose with a model of the famous Redstone missile. To show its size Dr. Von Braun indicates with his left hand the approximate height of a man.



get results in Government, is serving General Taylor and the Army well.

One indication of Mr. Brucker's abilities and energy lies in the way he seized the leadership of the drive to get the Reserve program rolling. By doing this he relieved General Taylor of an almost impossible burden, for the fact is that the difficulties in the Reserve program would largely be beyond the capabilities of military men without strong assistance of civilian leaders. This Mr. Brucker has provided. To counteract public apathy and lack of understanding, he has insisted on a thorough publicity campaign that is getting some results. And he has been politically wise enough to know that until an all-out effort has been made, there is no point in sniping at the legislative branch by stating that the law as written is imperfect. Instead, Mr. Brucker has been the aggressive optimist, insisting that the law can be made to work and heads will roll if it doesn't. He has also been an aggressive advocate of the Army's need for guided missiles (see page 12).

**G**ENERAL Taylor's flexibility is given a boost by the fact that some of the new weapons that his predecessors, Generals Collins and Ridgway, pushed, are now coming into operational use. The Honest John and Corporal battalions that are now part of the Army's striking power in both Europe and the Far East are evidence of this. The rapid maturing of staff studies and the continuing tests of new tactics and the Pentana organization and the coming reactivation of the 101st Airborne Division along these lines give General Taylor the opportunity to give concrete expression to the Army's drive for greater tactical and strategical mobility. As the Atomic Age Army takes shape he will have a talking point denied his

The new AN/GRC-19, a new long-range radio, can also send or receive messages at 100 words a minute as a radio-teletype. It has been effective up to 2,000 miles in tests and turns out louder signals that get through more often than any comparative set.



predecessor, who had to talk around blueprints that were not highly developed but were highly classified.

He has also shown an ability to attract a wide public. In recent months he has appeared on several nation-wide TV programs, including Ed Murrow's "Person to Person" and the NBC "Face the Nation." These appearances, plus the "good press" he has received with his appearances before important clubs and associations, all help the Army. He has also shown an ability to get others to help him. Despite Drew Pearson's ill-considered attempt to make more out of it than was there, General Taylor's letter to retired general officers was an expression of the Chief of Staff's knowledge that the task of telling the Army's story depends upon many voices, and that the voices of the more successful "alumni" of the Army aren't inconsequential.

**N**ONE of this is meant to imply that General Taylor is engaged in a flanking attack on the Department of Defense and the Administration's policies. In all his public appearances he has supported the Administration's military policies and has expressed his belief that the Army's problems can be solved within them. For example, he stated in his interview with the editors of *U. S. News & World Report* that if he could "have the means to insure quality in the 1,025,000 men now authorized, the Army can do its present job." To show that this was a reasonable man's adjustment to the facts as they are, he prefaced the statement by remarking that "a Chief of Staff never is and never should be entirely satisfied with his Army. He should be a perfectionist and, as such will probably always want a few more men to do the job better."

This grotesque water buggy is a Landing Craft Retriever developed for the Transportation Corps by R. G. LeTourneau, Inc. It straddles and picks up damaged landing craft in water as deep as eight feet and brings them safely to shore over grades as steep as 20 per cent. Its power is diesel-electric.





## Report from your AUSA CP

Ballot for Association officers appears on pages 58 and 59. Your vote is wanted; follow instructions closely so it is sure to be counted.

The need to tighten the Army's ranks gains widespread recognition. Latest indication of thoughtful consideration of problem of presenting united front comes from Military Police Association. MPA Executive Council met 9 January, approved following resolution:

**"Be It Resolved:** That the Executive Council of The Military Police Association does indorse the resolution adopted by the Executive Council of The Association of The United States Army at their annual meeting 21-22 October 1955, held at Fort Benning, Georgia to consider ways and means, in consultation with the Executive Councils or such other governing bodies of other associations dedicated in principle to advancing the position of the Army, for consolidating the effort of this common purpose of all such Associations while at the same time recognizing the special interests and purposes of such other Associations."

Copies of MPA resolution went to AUSA President, Chairmen of Committee on Resolutions, Committee on Organization. This encouraging note from important Army association augurs well for future of Army unity.

We have recently received a number of requests to reprint material from the magazine. Quartermaster Review requested permission to reprint "Private Digger's Logistical Godfather" and "The Red Ball Rolls Again," from August 1955 issue. Fellowship asked OK to publish "You Gotta Give 'em the Word" from September issue. Air War College asked for "A Program for the Army," from September 1955 issue, for instructional purposes. The Bayonet, 7th Infantry Division paper, was granted permission to use "Command Discipline," from October issue. Bayonet also requested use of "The Lieutenant and His Men," from same issue, but was referred to author on this one. Command and Staff School, Air University, was given OK to reproduce "In Air Defense Geography is on our Side" from January 1955 issue, as school assignment.

### Officers and Executive Council of the Association of the U. S. Army

#### PRESIDENT

Lt. Gen. Walter L. Weible, USA

#### ASSISTANT SECRETARY

Col. Robert F. Cocklin, Arty-NGUS

#### VICE PRESIDENT

Maj. Gen. Donald P. Booth, USA

#### TREASURER

Lt. Arthur S. Welch, CE-NGUS

#### SECRETARY

Col. Arthur Symons, Arty-USAR

#### ASSISTANT TREASURER

N. J. Anthony

### EXECUTIVE COUNCIL

#### For the term ending June 1956

Gen. W. B. Palmer, USA

Lt. Gen. Clyde D. Eddleman, USA  
Maj. Gen. W. F. Marquat, USA  
Maj. Gen. James C. Fry, USA  
Maj. Gen. H. McK. Roper, USA-Ret.  
Maj. Gen. Louis W. Prentiss, USA  
Brig. Gen. John B. Moore, NGUS  
Col. Alex J. Robinet, Inf-USAR  
Col. George V. Selwyn, Arty-NGUS  
Capt. John H. Bolton, Jr., CE-NGUS

#### For the term ending June 1957

Asst. Sec. of the Army Hugh M. Milton II  
(Maj. Gen.-USAR)

Lt. Gen. James M. Gavin, USA  
Maj. Gen. W. H. Abendroth, NGUS  
Maj. Gen. Raleigh R. Hendrix, USA  
Col. Charles W. McCarthy, Inf-USA  
Col. Charles A. H. Thomson, Inf-USAR  
Col. William B. Bunker, TC-USA  
Col. W. E. Maulsby, Jr., Armor-USA  
Col. George I. Forsythe, Inf-USA  
Capt. Sam W. Sacra, Armor-USAR

#### For the term ending June 1958

Maj. Gen. William S. Lawton, USA  
Maj. Gen. James D. O'Connell, USA  
Brig. Gen. Theodore S. Riggs, USA  
Brig. Gen. W. C. Westmoreland, USA  
Brig. Gen. Philip F. Lindeman, USAR  
Col. John Lemp, Arty-USAR  
Col. Walter F. Ellis, Arty-USA  
Col. Harold G. Haskell, Arty-USA  
Col. A. D. Surles, Jr., Inf-USA  
MSGT. Eugene F. Britti, Inf-USA

"The Association of the U. S. Army shall be an organization wherein all who are in accord with its objectives may join in the exchange of ideas and information on military matters, and in fostering, supporting, and advocating the legitimate and proper role of the Army of the United States and of all its elements, branches, and components in providing for and assuring the Nation's military security." (Statement by the Executive Council, Association of the U. S. Army, adopted 14 December 1953.)

Air University and National War College are among best "customers." The Journal of the Royal Artillery, England, used "Effective Artillery Support Isn't Accidental."

Annual membership inventory is now complete; Membership Department is off every-night work schedule. Yearly analysis is important both as measure of progress and to acquire statistics for new membership and advertising efforts. Figures reveal circulation increased by almost 2,000; end-of-year membership-circulation stood at 34,184. Actually, individual memberships increased 2,691 but unit subscriptions lost approximately 450 during the year.

Most of our members are officers, but enlisted memberships went up 350 during 1955 to total of 2,003.

With 70% renewal rate, figures show we had to recruit 11,000 new members to show gain detailed above. In 1955 we added 112 pages to the magazine over 1954; if all members will remember that 112 pages additional cost Association \$16,000, it may be spur to go out and beat drum for friends and associates to join Association. The more members, the more we can do with the magazine and the Association.

Members and other readers often write, asking how to get material published in the magazine. This is query dear to our hearts; we are always interested in new writers, new ideas. The answer boils down to a few simple rules. Have something to say, say it as well as you can without resorting to Field Manual or other "official" style, get it cleared before you send it, keep it under 3,000 words, type it, double- or triple-spaced, on one side of letter-size paper, and -- most important -- send it in. Remember, no one has to read the magazine; keep it short, keep it bright, make the reader want to read it.

Visitors to the Association often ask how we choose manuscripts for publication. Each manuscript is logged in, receipt sent to author, MS placed in large envelope designed for the specific purpose, and sent to editorially qualified staff members for comment, in turn. Frank comments are written on envelope (there have been embarrassing incidents when authors have inadvertently seen such comments) and the editor considers comments, balance and theme of projected issues, number of articles on similar subjects already accepted, and other factors for final decision.

Council Members are finding duties far from nominal:

Nominating Committee came up with slate of 24 candidates for June election; ballot appears elsewhere in this issue. If you are a member, read instructions carefully and vote.

Organization Committee has been having meetings almost weekly hammering out effective and acceptable organization plan to expand Association's influence and value to members. Brief of plan appeared in February issue, but work is far from complete.

Membership Committee makes continuing effort to feed ideas to staff on expanding individual support; individual members of committee often phone.

Other committees find duties come in waves, and are usually very busy before regular quarterly meetings. It's more work for busy people, and no pay except in the feeling that the work is for the betterment of the Army.

YOUR SECRETARY

# Annual Election of Officers and Members of the Executive Council of the Association of the United States Army

In accordance with the By-Laws of the AUSA there appears on the opposite page an official ballot for the election of officers and members of the Executive Council. Voting information and instructions appear at the bottom of that page along with pertinent extracts from the By-Laws of the Association.

## Background Information on Candidates

LT. GEN. WALTER L. WEIBLE, USA (Arty) is D/CS for Personnel, Off C/S, USA. Originally commissioned in the CAC in 1918 from the Officers Training Camp at Fort Monroe, Gen. Weible has held important logistical commands and has performed G3 and G1 duties in AFF and Army Hq. Now President, AUSA.

GEN. JOHN E. DAHLQUIST was Commanding General, CONARC, until he retired on 29 February. An Infantryman, he was commissioned in 1917 from the Officers Training Camp at Fort Snelling. During WWII he commanded the 70th and 36th Infantry Divisions, the latter in combat.

MAJ. GEN. DONALD P. BOOTH was commissioned from USMA in 1926, in CE; he transferred to Infantry in 1931. Now Assistant D/CS for Personnel, USA, in WWII he was CG, Persian Gulf Command. He commanded the 28th Division in 1953; retained the division when it was redesignated 9th Division.

MAJ. GEN. JAMES D. O'CONNELL, Chief Signal Officer, D/A, was commissioned in Infantry in 1922 from USMA; transferred to Signal Corps 1928. In WWII he served with Hq. 12th Army Group; since, he has served in a variety of Signal Corps and Staff assignments. Over 33 years' service.

LT. COL. EDWARD BAUTZ, JR., is on duty in Armor Branch, CMD. CGSC graduate, he has had troop and staff duty during past ten years; over 14 years of active duty. RA, SS, BSM (2OLC), PH (2OLC).

MAJ. GEN. WILLIAM F. MARQUAT, now retired, last served as Chief, CA&MG, D/A. Commissioned in CAC NG in 1916, he became a Regular in 1917. In WWII he served on Bataan, and in Far East until 1952. Over 35 years' AD.

COL. BRYAN C. T. FENTON was commissioned in Med-Res in 1935; MC 1936. Now Chief, Supply Division, SGO, he is graduate of Army Medical School, Medical Field Service School, and ICAF. He has held many high medical staff assignments. LM, BSM, CR (OLC).

MAJ. GEN. LOUIS W. PRENTISS was CG, TEC, Fort Belvoir, until he retired on 29 February. He was commissioned in FA in 1921. Transferred to CE in 1929. After a variety of logistical assignments, he became Engineer Commissioner of the DC, and later CG, TEC.

BRIG. GEN. BEN HARRELL is Chief, Infantry Branch, CMD. During the past ten years he has served with the 11th Airborne Division, the 6th Infantry at Berlin, and on the staff at TIS, as well as SHAPE and EUROM. He is a 1933 graduate of USMA; completed NWC 1952.

COL. WILLIAM H. PRICE, JR., is a 1939 graduate of USMA; an Artilleryman. He has attended Naval War College, CGSC. He has had extensive staff experience, commanded an AAA gun battalion, and has instructed at Fort Sill.

BRIG. GEN. STANLEY W. JONES is a 1929 graduate of USMA; commissioned in the Infantry. In 1942 he graduated from U. of Va. School of Law; he is now Assistant JAG for Military Justice. Attended TIS (Regular Course), TIS (Tank Course), CGSC.

MAJ. GEN. HARRY MCK. ROPER, retired, is Chairman of Organization Committee, AUSA. His last military assignment was Deputy AC/S for Research, Requirements and Special Weapons, D/A. Graduated USMA 1923, Field Artillery. Was Divarty commander, 6th Infantry Division, 1951-52.

The nominees were named by a membership committee under the chairmanship of Lt. Gen. Clyde D. Eddleman. For the guidance of members brief background information on each candidate appears below.

All ballots must reach the Association offices not later than 20 April 1956.

COL. JOE C. LAMBERT is Executive Officer, TAGO. After 15 years as an enlisted man, he was commissioned in AG-Res in 1940; RA in 1946. He has attended CGSC and AFSC; decorations include SS, LM, BSM (OLC), PH. Has had varied staff assignments, including Reserve components duty.

BRIG. GEN. WILLIAM J. THOMPSON is Chief, Artillery Branch, CMD. USMA 1929, he has attended FA School, CGSC, NWC. Varied assignments in past ten years include Assistant Professor, Dept. of English, USMA; G4, Seventh Army; Divarty commander, 45th Division; CG, X Corps Arty.

COL. WALLACE W. LINDSAY is Chief, Army Pictorial Service Division, OCSO, D/A. He has commanded the SC Photo Center in New York, and has been Chief of Army Pictorial Branch of EUROM. Commissioned in Sig-Res in 1925 while an enlisted man, he was integrated in 1946 as a major.

COL. FREDERICK C. WEYAND is Executive Officer to Secretary of the Army. Was originally commissioned in CA-Res in 1938, and was integrated in the same branch in 1946; transferred to Infantry in 1948. He is a graduate of both TIS and TAS, and AFSC. Has had G2 and command experience.

COL. DEMITRI BORIS SHIMKIN is commissioned in the Infantry, USAR; is not on active duty. He completed CGSC in 1944, and has had periods of active duty since the end of WWII, in G2 and Psychological Warfare, as well as a nine-month tour as instructor at the NWC.

COL. EVERETTE H. QUALLS, TC, USAR, has had 20 short tours as Commanding Officer, 435th Transportation Highway Transport Division, USAR. He completed CGSC in 1941, and has had over 5 years of active duty.

COL. HAROLD J. RUSSO, Infantry (USAR), was in USFET performing intelligence duties at the end of WWII. Since 1946 he has taken four short tours of active duty, three of them in G2 assignments, and one at the Infantry Field Grade Officers Refresher Course, TIS.

COL. FRANKLIN L. ORTH, Deputy Assistant Secretary of the Army (M&RF), is in the Retired Reserve, and was in Infantry, USAR. A graduate of the Bn CO and SO Course, TIS, 1942, he has won the Legion of Merit and Bronze Star Medal. Served in CBI Theater in WWII.

COL. GEORGE V. SELWYN, member of the Executive Council, AUSA, and formerly of the Council of the AA Association, is CO of the 260th AAA Group, DCNG. During WWII he served in both ETOLUSA and China. Commissioned in 1935, Col. Selwyn has served with Bell System 31 years.

MAJOR JOHN F. MCGUIRE is S1, 260th AAA Group, DCNG. A former Internal Revenue agent, he is Chairman of National Tax Forms Committee. Commissioned in 1943, he served in India and Burma in WWII, and has been commissioned in the DCNG since 1947.

COL. GEORGE W. LATIMER, Infantry, DCNG is judge of the U. S. Court of Military Appeals. He has served with the National Guard for 30 years; was Chief of Staff of the 40th Infantry Division. ROTC, University of Utah, CGSC.

CHAPLAIN (Major) JAMES H. BROOKS, DCNG, served in WWII at Fort Bragg, Camp Campbell, NYPE, and at sea. Appointed Chaplain, DCNG, 1948. Pastor of Our Lady Queen of Peace Parish, Washington, D. C. Major since 1952.



# BALLOT

## FOR PRESIDENT

(Vote for One)

☐ Lt. Gen. Walter L. Weible, USA (Arty)

☐ Gen. John E. Dahlquist, USA (Inf), Rtd.

☐ \_\_\_\_\_

## FOR VICE PRESIDENT

(Vote for One)

☐ Maj. Gen. Donald P. Booth, USA (Inf)

☐ Maj. Gen. James D. O'Connell, USA (Sig C)

☐ \_\_\_\_\_

## FOR EXECUTIVE COUNCIL

(Vote for One in each of the 10 Groups)

☐ Lt. Col. Edward Bautz, Jr., USA (Armor)

☐ Maj. Gen. William F. Marquat, USA (Arty), Rtd.

☐ \_\_\_\_\_

☐ Col. W. W. Lindsay, USA (Sig C)

☐ Col. Frederick C. Weyand, USA (Inf)

☐ \_\_\_\_\_

☐ Col. Bryan Fenton, USA (MC)

☐ Maj. Gen. Louis W. Prentiss, USA (CE), Rtd.

☐ \_\_\_\_\_

☐ Col. Demetri B. Shimkin, USAR (Inf)

☐ Col. Everett H. Qualls, USAR (TC)

☐ \_\_\_\_\_

☐ Brig. Gen. Ben Harrell, USA (Inf)

☐ Col. W. H. Price, Jr., USA (Arty)

☐ \_\_\_\_\_

☐ Col. Harold J. Russo, USAR (Inf)

☐ Col. Franklin L. Orth, USAR (Inf.), Rtd.

☐ \_\_\_\_\_

☐ Brig. Gen. Stanley W. Jones, USA (JAGC)

☐ Maj. Gen. Harry McK. Roper, USA (Arty), Rtd.

☐ \_\_\_\_\_

☐ Col. George V. Selwyn, NGUS (Arty)

☐ Maj. John F. McGuire, NGUS (Arty)

☐ \_\_\_\_\_

☐ Col. Joe C. Lambert, USA (AGC)

☐ Brig. Gen. W. J. Thompson, USA (Arty)

☐ \_\_\_\_\_

☐ Col. George W. Latimer, NGUS (Inf)

☐ Maj. James H. Brooks, NGUS (ChapC)

☐ \_\_\_\_\_

## Voting Instructions

The attention of the membership is called to the By-Laws pertaining to the nomination and election of officers and members of the Executive Council of the Association:

"ART. I. SEC. 1. *Active Membership.* Active membership in the Association shall be open to all members of all components of the United States Army, and to all members of senior Army ROTC Units."

"ART. I. SEC. 4. *Voting Rights.* Only Active Members shall have the right to vote."

"ART. IV. SEC. 2. *Election Procedure.* The Nominating Committee shall submit a slate of at least two nominees for each position falling vacant in the coming year, which slate shall be submitted to the active membership by printed ballot, not later than 1 March of the following year. The printed ballot shall contain appropriate spaces for write-in candidates. Such ballot may be distributed to

the active membership by return postcard or by ballot printed in the Association's magazine or otherwise, as the Executive Council may determine. Ballots will be counted under the direction of the Executive Council not later than 1 May, and the winning candidates shall take office at the June meeting of the Executive Council. A plurality of the votes cast shall be sufficient for election."

"ART. IV. SEC. 3. *Eligibility of Candidates.* Only Active Members shall be eligible for election to office under this Article."

In the upper left hand corner of the envelope in which you mail your ballot please write the words "Association Ballot," followed by your signature, your name typed or printed, and your rank and organization. Your name will be checked against the roster of members of the Association and if you are an eligible voter your ballot will be counted. Envelopes carrying names of ineligible voters will not be opened. Address the envelope to: "The Secretary, Association of the U. S. Army, 1529 18th St., N.W., Washington 6, D. C."

All ballots must be mailed so as to reach the office of the Association by 20 April 1956.

## THE MONTH'S BOOKS

### Camera Out of Focus

**MacARTHUR: His Rendezvous with History**  
By Maj. Gen. Courtney Whitney  
Alfred A. Knopf, Inc., 1956  
547 Pages; Index; \$6.75

Reviewed by  
COL. ROBERT F. COCKLIN

General Whitney mentions the two framed quotations which were displayed on the walls of the offices occupied by General MacArthur. One was Lincoln's famous "I do the best I can," the other that devastating indictment of armchair strategists attributed to Lucius Paulus. After reading this book and the one by Maj. Gen. Charles A. Willoughby, MacArthur may well wish to add to his collection, Maréchal de Villars's celebrated statement, "Defend me from my friends; I can defend myself from my enemies."

Of Whitney's regard for MacArthur there can be no question. In this book it reaches the proportions of idolatry. It has, however, led him into a real disservice to his chief. A man of MacArthur's stature needs no petty apologist for his courage, his patriotism, his brilliance, or his integrity. Objective historians will undoubtedly accord him a top rung on the ladder of America's illustrious military leaders. However, Whitney has gone a step farther. He refuses to admit that MacArthur suffered from a single human frailty; in his view, MacArthur was always right and all who opposed him were wrong.

Ostensibly, this book was to be a firsthand, eyewitness biography by a senior staff officer and close confidant of MacArthur. On the dust jacket MacArthur states that he allowed Whitney the full use of his personal records, and we presume the historical records of MacArthur's headquarters were available to him. Parts of the book are quite interesting and informative, and bring to light some new material that has not heretofore been published, primarily the dispatches between MacArthur's headquarters and the Pentagon. But for the most part the book's bias, its contradictions and its errors make General Whitney's difficult to digest.

Since Whitney didn't join MacArthur until 1943, the first portions of the book dealing with MacArthur's command during the fall of the Philippines and his subsequent escape to Australia contain

little that is new. The material for this part has come from other sources, and most of it has been covered thoroughly in other books.

The road back to the Philippines is more stimulating, but still is overshadowed by more solid works on these combat actions. These sections indicate pretty clearly that Whitney did little research outside of his own and MacArthur's records, for often he gets his facts garbled in his effort to show that scarcely a single military operation was carried out without MacArthur's personal supervision.

The landings at Ormoc to relieve the pressure on the Leyte beachhead are one example. Whitney states the case in this way: "But as on Bataan, MacArthur outsmarted his opponent. MacArthur sent his 77th Division around to the West coast of the island in a surprise amphibious landing and struck them in the rear." The volume in the official history, *Leyte: Return to the Philippines*, has a more factual version: "At the same time, General Krueger proposed that as soon as sufficient troops and supplies were available, an amphibious landing be made near Ormoc to capture the town." This latter view is substantiated in General Krueger's history of Sixth Army, *From Down Under to Nippon*. To MacArthur's credit, he usually let his army, corps and division commanders carry out their proper roles after he had laid down the over-all plans.

When he moves into the Japanese occupation and Korea phase with its tragic aftermath for MacArthur, Whitney writes under a full head of steam. Consider this passage, written in describing MacArthur's relief from duty: "Thus, one man in those millions who retained his outward calm and composure was the victim himself of this infamous purge. None could fail to see that this was MacArthur's finest hour, the hour of mental crucifixion and martyrdom. . . . And he must have pondered why he had thus become the first captain in all history to be so shamefully treated. . . ."

As a matter of fact, Whitney quotes the reason for MacArthur's dismissal as due to the "doubt that he would be able to support the policies of the administration." Previously, Whitney has gone to great lengths to prove that the administration's policies were wrong and that General MacArthur frequently opposed them.

Actually, to those who have studied the war in the Pacific and may have considered MacArthur somewhat of an enigma, this book is more revealing than the author intended.

In the conduct of military operations, General MacArthur has had few if any peers. He moved with a sure foot, a keen mind sharpened by years of study and experience. But on the administrative and political front, he was ruined by his friends.

We have only to read this account by one of his closest advisers to realize that any opposition to MacArthur's views was treated with scorn and as the designs of scheming politicians who were jealous of MacArthur's popularity. Most patriotic Americans will refuse to believe that Generals Marshall, Bradley, and Collins, along with Presidents Roosevelt and Truman, fall into a single mold of jealous political schemers insofar as MacArthur was concerned. General Whitney's whole book is so permeated.

Certainly, General Whitney's book adds to the over-all picture of MacArthur and the momentous events in the Far East during the past fifteen years. It is regrettable, though, that what could have been a clear portrait of a great soldier should have been taken through a camera so badly out of focus.

### Democracy on Trial

**THE LIVING LINCOLN: The Man, His Mind, His Times, and the War He Fought, Reconstructed from His Own Writings**  
Edited by Paul M. Angle and Earl Schenck Miers  
Rutgers University Press, 1955  
673 Pages; Index; \$6.95

Reviewed by  
BRIG. GEN. DONALD ARMSTRONG

Lincoln himself is the author of most of this unusual biography which closely approximates an autobiography. The nine volumes of *The Collected Works of Abraham Lincoln*, published in 1953, furnish the letters, speeches and other papers from which the two editors have made their selections. Messrs. Angle and Miers once again show convincing proof of their profound knowledge of Lincoln and of American history, particularly the Civil War period. Their selections are pertinent and appropriate. Their editorial comment on men and events and on Lincoln himself joins together the bits and pieces of Lincoln's writings in a co-

## Selected Check List of the Month's Books

*This run-down of some of the books received for review during the month preceding our deadline is to give our readers who like to follow current literature a monthly check list of the most important, useful and potentially popular books. Full reviews of some of these books will appear in this or subsequent issues. Any of these titles may be purchased through the Combat Forces Book Service. See page 64 for order coupon and a complete listing of Selected Books for Military Readers.*

**AIR POWER.** By Asher Lee. Frederick A. Praeger, 1956. 200 Pages; \$3.75. A surprisingly objective appraisal by a British air-power expert, which "assumes that the hydrogen bomb will not be used in war but will contribute largely to keep the peace."

**THE ANTARCTIC CHALLENGED.** By Admiral Lord Mountevans. John de Graff, Inc., 1956. 247 Pages; Illustrated; Index; \$4.50. A summary of the problems and accomplishments of all the exploring expeditions to the Antarctic, written by a well-known and experienced explorer.

**THE DREYFUS CASE.** By Guy Chapman. Reynal & Company, 1956. 400 Pages; Illustrated; Index; \$5.00. Lauded by the *Times* of London as "the best book on a tangled subject," this one should add more confusion and controversy to one of history's perennial arguments.

**GIDEON GOES TO WAR:** The Story of Major-General Orde C. Wingate. By Leonard Mosley. Charles Scribner's Sons, 1956. 256 Pages; Illustrated; Index; \$3.50. A sympathetic biography of a controversial figure who lived dangerously and never minded controversy. Known in the USA for his Burma exploits, this book devotes much space to Wingate's efforts to assist the Jews in Palestine before World War II.

**HERE'S ENGLAND.** By Ruth McKenney and Richard Branstetter. Harper & Brothers, 1956. 317 Pages; Illustrated; Index; \$2.95. An unusual guidebook, chatty and informative, without the stiff formality normal to the breed. Even warns *against* certain tours.

**HI-FI.** By Martin Mayer. Random House, 1956. 144 Pages; Illustrated; \$2.95. A well-illustrated and clearly written text for the absolute beginner in hi-fi; covers from buy-your-own to make-your-own.

**JOHNNY GREEN OF THE ORPHAN BRIGADE:** The Journal of a Confederate Soldier. Edited by A. D. Kirwan. University of Kentucky Press, 1956. 217 Pages; Illustrated; Index; \$3.50. A Confederate soldier's diary; as interesting and revealing as most works of this sort, written

in a combination of good humor, patriotism and hope. Not important, but Civil War fans will enjoy it immensely.

**KILL OR GET KILLED:** Manhandling Techniques for Police and the Military. By Lt. Col. Rex Applegate. Military Service Publishing Company, 1956. 332 Pages; Illustrated; Index; \$3.00. This third edition is an expanded version of a book that has become a standard work on the subject. Colonel Applegate stresses the military applications.

**MEN, ROCKETS AND SPACE RATS.** By Lloyd Mallan. Julian Messner, Inc., 1956. 335 Pages; Illustrated; Index; \$5.95. Readable and fact-packed account of the strides in research on the human element of high-speed flying and space travel. Fragmentary, because of the security aspect, but informative.

**MY FRIEND IKE.** By Marty Snyder, with Glenn D. Kittler. Frederick Fell, Inc., 1956. 237 Pages; \$3.50. Less than one third of this covers Snyder's military service with Eisenhower; the rest is entirely political.

**THE NEW JAPAN:** Government and Politics. By Harold S. Quigley and John E. Turner. University of Minnesota Press, 1956. 456 Pages; Index; \$5.00. Japan's postwar political developments, with special attention to the MacArthur period. Heavy going in spots, but useful for those who will deal with the Japanese.

**SIX YEARS OF WAR** (Vol. I of Official History of the Canadian Army in the Second World War). By Col. C. P. Stacey. Edmond Cloutier, Ottawa, 1955. 629 Pages; Illustrated; Index; \$3.50. The first of a four-volume official history. Well illustrated, and the maps are in three colors. A creditable beginning for a difficult task. In such items as the First Special Service Force and the Aleutian campaign, it is most interesting to see ourselves as the Canadians see us.

**POWER REACTORS** (Vol. III of Peaceful Uses of Atomic Energy). United Nations, 1955. 393 Pages; Illustrated; \$7.50. All that the United Nations can release on the subject; primarily technical, the

intelligent layman grounded in physics can understand most of it. Contains also the records of the conference held in Geneva in August 1955.

**THE REPORT ON UNIDENTIFIED FLYING OBJECTS.** By Edward J. Ruppelt. Doubleday & Company, 1956. 315 Pages; \$4.50. A former chief of the Air Force project to investigate UFOs reports on his findings and his conclusions. This is an honest book, which ends, "Only time will tell."

**TWA VACATION GUIDE AND WORLD ATLAS.** C. S. Hammond & Company, 1956. 384 Pages; Illustrated; Index; \$7.50. In 384 pages, including index and 58 pages of full-color maps, this book covers too much ground much too sketchily. Four pages on Mexico, and eight on Germany, including illustrations, is hardly adequate.

**WAR DIARY OF AN ARMY PSYCHIATRIST.** By Merrill Moore. Contemporary Poetry, 1955. 44 Pages; \$3.00. Poems of war, in post-Tennysonian style, by a World War II Army medical officer and successful psychiatrist. Grim and understanding, it's a thin volume for the price, as is most poetry, and not for those who confuse rhymed verse with poetry.

**THE WRITER'S BOOK.** Edited by Helen Hull. Barnes & Noble, 1956. 353 Pages; \$1.75. This book alone will not make you a selling author, but it does explain some of the tricks of the trade that successful writers have learned by experience. It probably won't make you a nickel, but you'll get some good advice on writing for sale.

**YOU CAN MAKE MONEY ON THE STOCK MARKET:** Your Personal Investment Guide. By Everett J. Mann. The Macmillan Company, 1955. 216 Pages; Index; \$3.95. Perhaps you can, but this particular approach is off-beat in many ways, and will cause arguments when discussed by experts and amateurs. Violently opposed to mutual funds, blue chips, and forecasting services, this author should be read critically and with thought. The would-be investor could do worse than buy this one and a more conservative book.

herent and smoothly flowing narrative. In this fascinating volume we feel that we are seeing the real Lincoln and watching his development, freed from myth-making and hero worship. Out of it Abraham Lincoln emerges with increased stature.

It is unfortunate that space is lacking for citing many episodes of useful military history to be found in this volume. There are also examples in a lighter vein which illustrate Lincoln's sense of humor. When

he addressed the House of Representatives on 27 July 1848, he deflated the military pretensions of Lewis Cass, a political opponent, in these ironic words: "By the way, Mr. Speaker, did you know I am a military hero? Yes sir; in the days of the Black Hawk War, I fought, bled, and came away. Speaking of Gen. Cass' career, reminds me of my own. I was not at Stillman's defeat, but I was about as near it, as Cass was to Hull's surrender; and, like him, I saw the place very soon

afterwards. It is quite certain I did not break my sword, for I had none to break; but I bent a musket pretty badly on one occasion. If Cass broke his sword, the idea is, he broke it in desperation; I bent the musket by accident. If Gen. Cass went in advance of me in picking whortleberries, I guess I surpassed him in charges upon the wild onions. If he saw any live, fighting Indians, it was more than I did; but I had a good many bloody struggles with the mosquitoes;



and, although I never fainted from loss of blood, I can truly say I was often very hungry. . . ."

We are happy to find the well-known letters to his generals that most soldiers know, and that all should know, for the wisdom they contain together with their unique quality of literary masterpieces. Possibly the most melancholy of all is his telegram to Grant on August 3, 1864 approving his order to follow the enemy "to the death. Wherever the enemy goes, let our troops go also." Those words of Grant's were a new form of strategy for the Army of the Potomac, and Lincoln closed his dispatch with the warning: "I repeat to you it will neither be done nor attempted unless you watch it every day, and hour, and force it."

The editors have written this eloquent appraisal of Lincoln's character as he clearly reveals it in his own writings: "Steadfastness of will, fairness of judgment, humility of self, growth of mind and bigness of heart were the invincible attributes that Lincoln brought to Washington in those dark, bitter years when democracy as a workable form of government stood on trial before the world."

Scores of biographies of Lincoln have been written, but this one, largely of his own making, merits a place alongside even Carl Sandburg, James Randall, and Benjamin Thomas.

### "No Substitute for Victory"

#### HOW COMMUNISTS NEGOTIATE

By Adm. C. Turner Joy, USN, Retired  
Foreword by Gen. Matthew B. Ridgway  
The Macmillan Company, 1955  
178 Pages; \$3.50

Reviewed by

COL. CHARLES W. MCCARTHY

Admiral Joy has written a great book in modest fashion. While telling a tale of frustration, setback and disheartening delay, the record of accomplishment shines through. The result was not a great victory and yet, success. Unlike many of the recent personal-experience accounts by prominent military leaders, which are designed to add to the prestige of the author, Admiral Joy has used a different approach and yet has achieved the same goal. He has been lavish in his praise of subordinates and grateful for the support given by his superiors, and in so doing has added to his own stature.

Much has been written about the Korean armistice negotiations which stretched out for nearly two years. Much of it to point out lessons learned, or to attempt to deduce from the experiences of Kaesong and Panmunjom a pattern of behavior inherent in Communists which will serve to guide other negotiations. Because of a personal interest in the historic battle of words fought in the middle of an active battle ground, this reviewer has read much of this material.

Without reflecting on the quality of the other efforts, it can be said that within this little book there is all the background, all the guidance, that the negotiator who must face Communists in the future under similar, or nearly similar, circumstances requires. He should not conclude that it is only necessary to read the volume through, stuff it in the hip pocket and then stalk off to the lists to tilt with paper lances with Communist adversaries.

As has already been said, what the book contains is sufficient, but to prepare for the conflict, careful study and a relating of the actual experiences recited here into the over-all pattern of behavior are necessary to prepare one so that he will not be "sucked in" through failing to recognize an apparent new maneuver for the same old trite approach with a new façade.

I think it is safe to predict that within a year this book will be required reading in all senior service schools. All members of the Foreign Service should by now have finished their second reading. Certainly civilian institutions should include it in all political-science courses.

Admiral Joy has an easy, homely style, and the earthy analogies with which he opens many of the chapters add a refreshing touch. It is a well-ordered book following somewhat the manner of a play. First the stage is set, then the characters are introduced and made to move upon the stage reciting their lines and working toward the climax. But here our analogy fails. In spite of many attempts, no climax is reached. The cast had to be changed in part before the climax, but Admiral Joy's book does not carry us that far.

Admiral Joy most appropriately, as an outstanding military man, has commented on the national and military strategy which brought about the armistice. It is reassuring to find the old sailor supporting the MacArthur theory of the application of complete force in order to end the conflict. For a man who gave forty years of his life to serve in the military forces of his country, it was difficult for him to accept that these military forces had been fought to a standstill by a force of Asiatics. In his opinion, it was not necessary, nor was it necessary for him as the leader of the team to struggle for compromise instead of victory at Panmunjom. Victory, in his opinion, was possible provided Washington gave Ridgway authority to apply the military pressure while at the same time Washington preserved a firm, positive political posture at Panmunjom. Not only did Washington fail to preserve a firm, dignified posture, but on several occasions leaked information on our intention to yield on certain points. This advance notice to his opponents left Admiral Joy in the embarrassing position of trying to win Communist acceptance

of a point when the Communists knew that they need only wait for the wires to bring Joy the word to give in.

It is to be regretted that such an eminent sailorman had to be exposed to such a distasteful task near the end of a distinguished military career. But true to the military tradition, he took it without complaint, and he is reporting his experiences not in a complaining way but with the hope of assisting those who may find themselves cast in similar roles.

As one reads this book, the echo of General MacArthur's "in war there is no substitute for victory" rings clearly. Maybe the lessons learned at Panmunjom will forestall any effort to again try to gain through negotiation what must be won by force. What have we gained if we win no more than a little time in which to sit and reflect that we have lost our pride and therefore must eventually lose our all?

### Canada's Official History

#### SIX YEARS OF WAR

By Colonel C. P. Stacey  
Canadian Department of National Defence,  
1955  
629 Pages; \$3.50

Reviewed by

COL. FREDERICK BERNAYS WIENER

This volume, subtitled "The Army in Canada, Britain and the Pacific," comes from the pen of the Director, Historical Section, General Staff, and is the first of four that will constitute the official history of the Canadian Army in World War II. The second will cover the campaign in Italy, the third the campaign in Northwest Europe, while the fourth will deal with the broad outlines of Canadian military policy, including cooperation within the Commonwealth and with the United States.

This first volume is divided into three self-contained parts. At the outset, Colonel Stacey deals with organization, training, and home defense in Canada. He notes that "Canada is an unmilitary community," and documents the remark by showing that, at the outbreak of the war in 1939 the actual strength of the Permanent Active Militia (the full time Regulars) was less than 5,000, while the Non-Permanent Active Militia (the citizen soldiers) numbered less than 47,000 more. These forces were equipped with 16 light tanks, five 3-inch mortars, 29 Bren guns, 23 antitank rifles, four 2-pounder antitank guns, and four 3-inch AA guns—quantities accurately characterized as "ludicrous."

Yet from these minuscule beginnings, Canada raised an Army of nearly 500,000 at peak strength, and mobilized and maintained an overseas force of an army headquarters and army troops, two corps with corps troops, and five divisions, two of them armored. Naturally, opportuni-



ties for promotion were striking: two lieutenant generals who commanded corps in 1944 had started in 1939 as a temporary major and a captain of the Permanent Force, while among the major generals who commanded divisions in 1943-45 were officers who, in 1939, had been majors and captains both in the Permanent Force and in the Non-Permanent Active Militia.

The particular problem of the Canadian Army overseas was that it was so long in garrison in England, and that many of its men were six years and more away from home. Rotation began late and was on a very limited scale. "The separation of families was not the least of the disasters caused by and inseparable from the war; and Canada paid a heavy price in social misery and broken homes for the long sojourn of her troops overseas."

The special problems of Canadian Military Headquarters in England, a large organization that functioned best when it regarded itself as, simultaneously, the forward echelon of National Defense Headquarters in Ottawa and the rear echelon of the Canadian forces in the field, while fascinating as an exercise in administration, are probably not of concern to the general American military reader. But in view of the NATO Status of Forces Agreements, the legal position of Canadian troops in Britain during World War II has a more immediate interest.

The Canadian forces accepted the jurisdiction of the British civil courts in all cases of civil offenses, and six Canadian soldiers were duly hanged upon conviction for murder in those courts. "The Canadian authorities took the responsibility in such cases of ensuring that the accused was competently defended and had every chance."

It was long before any Canadians saw action. They were alerted for Norway and as reinforcements for Dunkirk; both operations were cancelled. The 1st Canadian Division was landed at Brest in June 1940, and some of its units marched inland, but in view of the general deterioration of the French front, they were withdrawn before meeting the enemy. Therefore, by the time of the Dieppe raid, the Canadian forces were spoiling for combat.

At that time, however, amphibious tactics were still in a rudimentary stage, and because of indifferent planning and of failure to have boats ready for the evacuation, the operation was a disaster. Indeed, "from a force of roughly 5,000 men engaged for only nine hours, the Canadian Army lost more prisoners than in the whole eleven months of the later campaign in Northwest Europe, or in the twenty months during which Canadians fought in Italy." There were also over 800 killed. D-day was to tell a different story.

But before then, being anxious to engage the foe on even terms, the Canadian Government determined that one corps was to participate in the Italian campaign, whereupon General MacNaughton, CG, First Canadian Army, who opposed dispersion of his force, asked to be relieved.

Canada's Army against Japan faced only tragedy and anticlimax. The two battalions that were sent to Hong Kong in November 1941 were lost within little more than a month; the campaign against Kiska was, in Colonel Stacey's apt word, a "fiasco"; and while plans were well under way after VE-day for a Canadian Army Pacific Force of one infantry division reinforced with armor and service troops, the Japanese surrendered before that force could be fully organized.

Colonel Stacey has written a comprehensive and fully documented military history of the first rank. The remaining volumes of the Canadian official history will accordingly be awaited with anticipation. And an American reviewer cannot forbear mentioning that the Queen's Printer is making available a great deal of book for a mere \$3.50.

### Injustice Wrecks Morale

#### THE DREYFUS CASE: A Reassessment

By Guy Chapman

Reynal & Company, 1955

400 Pages; Illustrated; Index; \$5.00

Reviewed by

MAJ. GEN. H. W. BLAKELEY

"L'Affaire Dreyfus," which did much to disrupt France from 1894 to 1906, is now for no discernible reason being featured in America. Last year, Simon & Schuster published *Captain Dreyfus: The Story of Mass Hysteria*. It was condensed in the November *Reader's Digest*. Now comes a more scholarly book by a British history professor.

For the military reader, Mr. Chapman's book has three values. The first two are background values for those who are professionally concerned with current events in France. The political and legal facts which the author brings out as background for his story are relevant today. As Edmond Taylor, a close observer of French politics, said in a recent issue of *The Reporter*, "The old ideological chestnuts roasted in the fire of the Dreyfus affair and other nineteenth-century battles still have an emotional appeal, while the contemporary problem of defending democracy against the totalitarianism of the Right and the Left is too new to touch any responsive chords, even when it is admitted as an intellectual imperative."

The other value of this book is a simple but vital one. It is the lesson that military organizations are particularly sensitive to injustice. Nothing can wreck morale more quickly.

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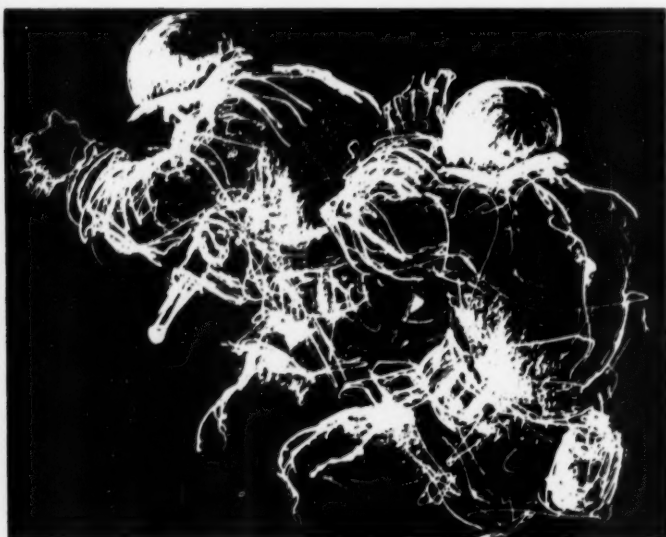
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